THE UNIVERSITY
OF ILLINOIS
LIBRARY
527.05
NA
v. 19

3747

CENTRAL CIRCULATION BOOKSTACKS
The person charging this material is responsible for its return to the library from which it was borrowed on or before the **Latest Date** stamped below.

**Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.**
**TO RENEW CALL TELEPHONE CENTER, 333-8400**
UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

OCT 07 1993
SEP 30 1993

When renewing by phone, write new due date below previous due date. L162

R.R. Harvey

LIBRARY OF CONGRESS
DUPLICATE
EXCHANGED

THE

# NAUTICAL MAGAZINE.

THE

# NAUTICAL MAGAZINE

AND

## Naval Chronicle

FOR 1850.

## A JOURNAL OF PAPERS

ON SUBJECTS CONNECTED WITH

## MARITIME AFFAIRS.

LONDON:

SIMPKIN, MARSHALL AND CO.,

STATIONERS' HALL COURT.

Transfer
Naval Medical School
March 1912.

LONDON:
HUNT, PRINTER, CHURCH STREET,
EDGWARE ROAD.

527.05
NA
v.19

# CONTENTS TO VOL. FOR 1850.

ENLARGED SERIES.

Abstracts from the log of the royal mail steam ship Asia, 638.
Abuses on board emigrant ships, 191.
Adelaide Memorial Fund, 701.
Admiral; the Etymon or true original of the word, with the various appellations thereof, 451.
Admiralty decision—collision between the Fortune and Eliza, 303.
Admiralty order, examination of masters and second mates, 54.
Ancient Naval Records—Charles the First, 673.
Another north-west expedition, 184.
Anticosti, 527.
Antilles—Sombrero, Anguila, St. Martin, &c., 529, 620, 670.
Apprentices in Merchant ships, 339.
Arctic amusements, 553.
Arctic Expedition, Resolute, Capt. Austin, 398.
„ Felix and Mary, Sir John Ross, 402.
„ Prince Albert, Capt. Forsyth, 464, 606.
„ North Star, Com. Saunders, 588.
„ Provisions of Sir James Ross and Capt. Austin, 525.
„ proceedings of Capt. Kellett and Com. Moore, to October, 1849, 91, 176.
Arctic ships, 523.
A summer's week off the Cape, 29.
Australian mails, 295.

Barrow monument—the foundation stone, 386.
Bhering's Straits expedition, 343.
Bottle papers, 45, 697.

Capt. Peacock's anti-sargassian conservative paint for ships bottoms, 118, 460.
Carrier pigeons, 703.

251321

Chat about the Florida, or Gulf Stream; and the level of the Mexican Sea 19.
Collisions in the open sea, 201, 285, 330, 405, 454.
Currents of the ocean, 26.

Description of the island of Corvo, 1.
Description and soundings of the harbour of Tor, 41.
Design for a harbour, or naval station, 151.
Directions for entering the Rangoon River, 39.
Division of prize money, 51.
Division of business of the Admiralty, 637.
Dr. Rae's report of the land expedition, 354.
Duties of the Surgeon of an Emigrant ship, 685.

Examinations of masters and mates, 49, 189, 233, 287, 356, 461, 505, 626, 695.
Excursion to the Lakes of Nicaragua up the river San Juan, 481, 539.
Extracts from Notes as to a lighthouse in the Skerki Channel, 318.

Galvanized iron boats, 337.
German navy and German unity, 254.
Great Circle sailing, 326.
Great circle sailing, the quickest voyage to Australia, 226.

Honduras Militia, 246.
How things are done in New York, 244.
How to get to California, and how to get on there, 238.
Hurricane at the Navigator islands, Pacific, 666.

Influence of the moon on the earth's atmosphere, 380, 435, 499, 536.
Iron lighthouse on the Wolf rock, 123.
Issue of grog, 293.

Junction of the Atlantic and Pacific ocean, 527.

Laird's Iron Sectional Boats, 274, 337.
Late Dowager Queen Adelaide, 45.
Latitude and hour angle, by simultaneous altitudes of two stars, 157.
Lecture on popular songs, 409.
Loss of the Orion steamer, 466.
Louisbourg harbour, Cape Breton, 687.

Mail contracts for Brazils and the West Indies, 359.
Maldives of the Indian Ocean, 660.
Massacres at the Sandalwood islands, 431.

Maury's pilot, and wind and current charts of the Atlantic ocean, 187.
Mercantile marine act, 506, 561.
Merchant service bill, 365.
Merchant service, 244.
Metallic plugs for boats, 689.
Meteorological Register, 56, 128, 192, 248, 304, 360, 416, 472, 528, 584, 640, 712.
Misrepresentations, fabrications, and delusions, 193.

Nautical description of Laguna de Terminos, Yucatan, 649.
Naval Forces at Home and Abroad, 690.
Nautical Notices, 40, 122, 185, 242, 291, 339, 462, 520, 577, 627, 699.
Nautical Reminiscences, 676.
Nautical sayings and doings, 581, 636, 704.
New books, 52, 124, 190, 245, 357, 469, 580, 707.
New charts, 54, 127, 246, 415, 472, 639, 712.
New Caledonia, 359.
New Hebrides, New Caledonia, and the Loyalty islands, 425.
New scale of pay and provisions, 631.
New West India steam fleet, 471.
Northern lighthouses, 358.
Notes on the river San Juan de Nicaragua, 663.
Notes among the islands of the Pacific, 35, 218, 259.

On the currents and tides of the Mona Passage, 585.
On the necessity of a light on the Basses, 57.
On the practicability and advantages of obtaining a sea rate for a chronometer, 65.
On the Ramsgate tides of the autumnal quarter, 1849, 75.
On the rudder and compass, 44.
On the winds of the St. Lawrence, 417.
Oral traditions of the Cinque ports, 210, 265, 310, 375, 439, 657.
Outline of the voyage of H.M.S. Enterprize, and Investigator, to Barrow Strait, in search of Sir John Franklin, 8, 82, 160, 230.

Passage of Cape Horn by the Nassau Channel, 249.
Perpetual log for ships, 52, 441.
Pirates near Scio and Smyrna, 246.
Polar sea, 630.
Preserved Potato, 42, 355, 707.
Proposed Adelaide pension fund, 117, 231, 406, 701.
Proposed measures for the relief of the Mercantile Marine, 132.

Queen Adelaide memorial fund, 701.
Quickest voyage to Australia, 276.

Remains of the Avenger of the Sorelli rocks, 433.
Remarks on the winds which prevail in some parts of the Pacific, and on the north-western coast of America, 473.
Remarks on the Passage of the ship Constance, 272.

Remarks on the approaches to Taranaki, or New Plymouth, New Zealand, 129.
Removing buoys and rocks, 340.
Report of the Grog Committee, 247.
Rival routes across the channel, 239.

Sagacity of a water dog, 295.
Sailors' Home, 263, 304, 517.
Sailing Orders of Capt. Austin, 341.
Samoan, or Navigators Islands, 324.
Sandalwood voyages, 298.
Search for Sir John Franklin, 465.
Settling a kingdom man-of-war fashion, 467.
Sir John Richardson's report of his search for Sir John Franklin, 109.
Sketches characteristic of the sailor, 305.
Something about indifference and its evil consequences, 681.
Some passages in the history of Falkland, 641.
Sorelli rocks, 43.
South-west coast of Louisiade, Evans bay, Cape York, 361.
Soyer's magic stove, 242.
Spontaneous combustion of coal, and the lamentable loss of ships and lives caused thereby, 369.
Steam between Galway and New York, 411.
Straws from California, 280.
Surgeons in emigrant ships, 527.
Survey of the Portland Frith, 526.
Survey of the river Ribble, 288.

Tablets to the memory of the late Sir John Barrow, Bart., 48, 115.
Tablets in the Dockyard chapel, Portsmouth, 707.
Telegraph communication with France, 192.
Torres straits, 236.
Tramore Bay and Waterford Harbour, 251.
Treachery at Timor Laut, 284.
Trial of the New York and Glasgow new steamer City of Glasgow, 294.
Turkish for Tars, 32, 77, 170, 256, 449, 494, 558, 616.

Voyage of the Rattlesnake, 624.

Wave guage, 224.
West India mails, 526.
Wreck of the Richard Dart, 228.
Wreck of the Adelaide steamer, 296.
Wreck of the Orion, 414.
Wrecks in the Atlantic, 415.
Wrecks of British shipping, 47, 189.

Yacht voyage into the Arctic sea, 191.

THE

# NAUTICAL MAGAZINE

AND

# Naval Chronicle.

JANUARY 1850.

## Description of the Island of Corvo.—*By Capt. A. T. E. Vidal, R.N.*

The Island of Corvo is the northernmost of the Azores, and is formed by a single volcanic mountain. Its extent from north to south is three miles and a half, from east to west two miles and a quarter, and in circuit it exceeds nine miles and a half.

The crater of the volcano, which has not been in action since the discovery of the island, occupies all the north-western portion of it, and is called the Caldeira. It is a deep oval basin, and has the edge or rim of it formed by a narrow ridge of lava of very irregular outline, covered with deep soft spongy moss, long coarse grass and heather. It is about 7,500 feet across from north to south, 4,500 from east to west, and three miles and a quarter in circumference. The most elevated part of the Caldeira is on its south-west side, where it rises to the height of 2,548 feet. On the north some part of the ridge is about 2,200 feet high: the eastern and western margins are considerably lower, in some places not exceeding 1,434 feet.

At the bottom of the basin, on its north side, there are two small lagoons separated from each other by a narrow neck of land, from which a rocky point crowned by a hill extends north-east into the eastern lagoon. The western one, which is the largest piece of water, has a very similar point projecting into it from the same narrow neck of land to the westward, and is embellished by three small islets tufted with shrubs. The surface of this lagoon, which is a few feet below the level of the eastern one, is 1,273 feet above the sea, and 1,275 below the

highest peak on the margin of the Caldeira. To the southward of these lagoons there is a space of gently undulating land, covered with grass, on which some cattle and sheep were pastured. It is drained by a small brook on the south-west side of it, which conducts the waters in that direction into the western lagoon; on the eastern side by a small marsh and two or three little ponds, the waters of which are led off by a narrow artificial cutting into the eastern lagoon, and used as motive power for three or four rude and very diminutive grist mills.

On the north-western side of the Caldeira, some of the parts sloping to the south-east are cultivated with maize and potatoes. The easiest access to this once fearful, but now tranquil basin, is by a path leading over a gap in its eastern margin where the descent is gradual.

The summit even in mid-summer is so frequently capped with clouds, that numerous small rills of water were running down the mountain in the month of August.

The greater part of the island is used for pasture, but there is a narrow belt of land extending from the top of the cliffs of its eastern coast towards the crater, that is enclosed, and laid out in fields and gardens. The part so occupied commences at the top of the high land immediately above the village, and terminates between Cabeça Negra and Point N.E., about two miles and a half.

In this distance several ravines occur, and the scanty supply of fuel the island affords is obtained from the trees and shrubs growing upon their steep sides.

The comparatively low land which forms the south-west extremity of Corvo, has all the appearance of having been added to the original island by some after irruption of lava. It comprises between 160 and 170 acres, divided into fields by low dry built stone walls, and is diligently cultivated with grain, flax, and potatoes, and various vegetables.

The village of Corvo stands upon the eastern side of the south point, on rising ground close to the coast, and contains between 160 and 170 houses, generally built of stone and thatched; though a few are roofed with tiles. There are no other habitations on the island; and these for the most part wear a dirty and uncomfortable appearance, rising above each other in rows on the side of the hill, and separated by filthy lanes, the resort of pigs and poultry.

At the southern limit of the village stands the parish church, a small stone building with a square tower and short spire, which being kept well whitewashed is a good sea mark. About 250 yards S.W.b.W. from the church there is a little rocky hill crowned by an antique horizontal grist mill. The church tower and this mill are the most conspicuous objects on the point.

The population of Corvo, according to the official returns for 1843, amounted to 784 persons—383 males and 401 females.

The people are extremely poor, and live in a very primitive state of society; but though they possess scarcely anything deserving the name of comfort, as understood in England, there was no indication of want. They appeared to have food enough for themselves, and some to offer in

exchange for what they deemed luxuries; and to be well supplied with clothing, both of wool and linen, the product of their island and their industry.

The costume is perfectly simple:—a handkerchief round the head, a short jacket to fit the figure, and a large full petticoat with a broad ornamented border of blue, white, red, or yellow; and sometimes all these colours together is the usual dress of the women. The men wear jackets and trousers, and commonly a woollen cap. The only garment which excited attention was a spencer or overcoat, which in cut and colour was exactly similar to that usually worn by our Great Captain. Shoes and stockings are not used, except by the hospitable and venerable vicar, who is at once priest, governor, and arbitrator-general of his island.

They appeared to be an industrious hard-working people, not in any way remarkable for personal appearance, although some few of the young women were both handsome and graceful.

Their clothing, as already stated, is principlly obtained from the fleeces of their sheep, and the flax of the island; but, some Portuguese and English coloured cottons are to be seen; and the American whalers while fishing off the island supply *their* unbleached cottons, (much used for domestic purposes,) and sundry *notions* also, in exchange for meat, poultry, fruit, milk, and vegetables.

The official returns before referred to give the following as the annual production of Corvo:—Indian corn 2,276 bushels, wheat 1,580, rye 650, beans 46½, French beans 69¾, and potatoes 6,970; flax 324 and wool 648 lbs.; horned cattle 156, sheep 302, goats 10, and pigs 104.

In addition to this there are many pumpkins, melons, and other vegetables; some little fruit, and abundance of poultry. Wood is too scarce for export, and there are no conveniences at all for the supply of water.

The low extreme points of Corvo are comprised between the parallels 39° 39′ 54″ and 39° 43′ 28″ N., and the meridians 31° 05′ 25″ and 31° 08′ 20″ W.; and the church, which is the best defined object, is in latitude 39° 40′ 09″ N., and longitude 31° 07′ 16″ W.; the magnetic variation in 1842 was 27° 30′ W. It is high water, full and change at 12h. 25m., and the rise of tide 3 feet 6 inches.

The south end of the island bears the name of Ponta de Pesqueiro-alto. On the eastern side of it in front of the village there is a stony beach about 200 yards in length, on which a few fishing-boats are usually hauled up. Beyond this beach the coast presents a wavy line of high bold rocky cliffs, with a narrow border of thin debris lying at the foot of them to Ponta de Casa, its general direction being N. 52° E., and the distance one mile three-tenths.

Immediately off the point, which is sharp and well defined, and at the distance of 60 and 70 yards from it, there is a rock just visible above water, on which the sea at times breaks violently, and there is a similar rock a quarter of a mile N.N.E. of it. On the top of the point about 400 yards within the cliffs is a hill 483 feet above the sea.

From Ponta de Casa the next extreme point is that of L'Este, bearing N. 16° E., and distant one mile. The coast falls back a little to

the northward of the point, but continues very similar in character, only the cliffs are of greater elevation. Ponta de l'Este, as its name implies, is the eastern extreme of the island.

The quality of the bottom in the parallel of Ponta de Casa is generally a fine sand varying much in colour from light speckled to brown, and almost black: 19 fathoms will be found at the distance of half a mile; thence it deepens rapidly, and at three-quarters of a mile there are from 60 to 70 fathoms: the edge of the bank (200 fathoms) is *one* mile from the point.

In the parallel of Ponta de l'Este the bank extends one-tenth of a mile further out, and is generally deeper, there being 17 fathoms one quarter of a mile from the point, and at half a mile 40 fathoms, fine sand.

From Ponta de l'Este the Ponta de N.E. bears N. 16° W. distant one mile and one-tenth. Between them one-third of a mile from the first named point is the small rocky projection of Cabeça Negra; three little detached rocks lie at the base of it, and above it is a cultivated hill.

The cliffs increase in elevation as you proceed northerly, though a deep ravine breaks through them on the north side of Cabeça Negra. Point N.E. is a bold bluff 760 feet above the sea. From it some large fragments have fallen, occasioning a little extension of the narrow beach around it. To seaward of this point bearing from it N. 51° E., and distant three-tenths of a mile lies a sunken rock, called Baixo de N.E. It is a single block of stone of very small extent, steep to on all sides, and has a depth of three or four feet over it at low water.

In the parallel of the point, at a quarter of a mile from the land, the depth is from 17 to 20 fathoms; at half a mile 25 to 30 fathoms; at three-quarters of a mile 32 fathoms; thence it falls rapidly, and at one mile there is no bottom with 200 fathoms. On a north-east bearing from it the soundings are similar at the same distances, and the quality of the bottom generally is a fine sand of various colours, with an occasional cast of rock.

The next point westward is Joao de Moira bearing N. 57° W., distant about 0·65 of a mile and from thence Ponta do Norte, the north extreme of the island, bears N. 79° W., about the same distance. The coast between these points presents a series of high inaccessible cliffs fronted as before by a narrow belt of stones; and deviates little in the outline.

From the top of the cliffs the land behind them rises with great abruptness to the margin of the Caldeira, a height of 2,200 feet, where the horizontal distance from the sea does not exceed 2,500 feet.

Ponta do Norte is a huge rock 368 feet in height, jutting out nearly 150 yards at right angles with the shore on either side of it. It is inaccessible from the sea; and the north, or outer face of it shews an overhanging cliff, which renders it remarkable when viewed from the east or west.

S. 87° W., three-tenths of a mile beyond Ponta do Norte is a small black elevated islet of naked lava: the coast between them forms a little bay, the shore of which is profusely scattered with large fragments of

rock fallen from the enormous cliffs behind them; and S. 47° W. two-tenths of a mile from the outer point of this islet is Ponta de Turrais, the north-west extreme of the island.

This north-west point is very remarkable : it runs directly down from the north edge of the crater into the sea, a sharp serrated ridge of dark lava. There is a large rock at the extreme point of it, and on the north side, in the space between it and the islet, and several low detached rocks and a flat narrow pier of lava projects from the shore towards them.

Outside these rocks 300 yards north of Ponta Turrais with Ponta do Norte bearing east, there is a sunken rock on which the sea breaks violently in stormy weather.

The point is surrounded by inaccessible cliffs, and on its southern side there is a depth of seven fathoms close alongside them.

The soundings around the northern shores of Corvo are irregular near the land, and under 30 fathoms, generally rocky. In the meridian of Ponta de Joao de Moira there will be found 8 fathoms about 250 yards from the point; at a quarter of a mile 15 fathoms; at half a mile 30 fathoms; at three quarters of a mile 37 fathoms; at one mile 45 fathoms; and at one mile and a half 200 fathoms, the edge of the bank.

In the meridian of Ponta do Norte there are 4 fathoms close alongside the cliff; 300 yards off 6 to 7 fathoms; at a quarter of a mile 12 fathoms; at half a mile 30 fathoms, fine brown sand; at three-quarters of a mile 40 fathoms; at one mile 50 fathoms; from thence the bank descends rapidly, and no soundings will be obtained with 200 fathoms at the distance of a mile and a half. Around Ponta Turrais the bottom is always foul. In its meridian with the sunken rock, and point in line, there are 17 fathoms three-tenths of a mile off; at half a mile 23 fathoms; at three-quarters of a mile 32 fathoms, and to the edge of the bank it is one mile and a half.

In a W.N.W. direction soundings extend off one mile and three-quarters. In the parallel of the point, at the distance of a quarter of a mile there are 13 to 14 fathoms; at half a mile 18 to 20 fathoms; at three quarters 25 to 26 fathoms; at one mile 40 to 50 fathoms; and thence the descent is rapid to the edge of the bank, distant one mile and nine-tenths.

In rounding the island it will be advisable not to near this point in less than 20 fathoms water.

At Ponta Turrais the coast turns to the southward, and the next extreme point seen is Ponta d'Oueste bearing S. 14° W., one mile and four-tenths. For about half this distance there is a beach of small shingle, and the high land comes down to it from the margin of the Caldeira, not in cliffs, but presenting an extremely steep declivity covered with shrubs and wild vegetation. As you approach Ponta d'Oueste this declivity near the sea assumes the appearance of loose earth cliffs, formed into one or two terraces as they have slipped down from time to time by the washing away of their base; and in front of these a narrow beach of large stones and shingle forms the actual coast line.

At this point the island has attained its western limit, and lofty cliffs

characterise the remainder of the coast all the way to the north side of Perqueiro-alto point.

The bank of soundings along the shore last described is comparatively shallow and rocky to the extent of nearly half a mile from the land, where there are 15 fathoms. Outside that, the quality of the bottom is generally fine sand, though rocky casts frequently occur. In the parallel of Ponta d'Oeste at a quarter of a mile from the shore will be found 9 to 12 fathoms; at half a mile 25 fathoms; at three-quarters 35 to 40 fathoms; at one mile 44 to 49 fathoms; at one mile and a quarter 55 fathoms; and thence it deepens rapidly to 200 fathoms at one mile and three-quarters off.

Nearly three-quarters of a mile south of Ponta d'Oeste is a small low detached rock named Ilheo de Mulher. It is about 50 yards from the beach at the foot of the cliffs abreast of it, and has a few rocks above water close to it to seaward with 6 fathoms water almost alongside of them.

From Ilheo de Mulher, the coast, (a narrow beach of stones with an occasional large rock on it,) runs S. 27° E., 1·05 of a mile to the Sugar Loaf Rock, a mass of lava standing at the base of a bold cliffy point, behind which there is a small rocky cove also surrounded by high cliffs, which appear to have once formed the southern extremity of the island.

From this Sugar Loaf Rock the coast runs S. 30° W., 0.45 of a mile to a bold basaltic bluff of a small elevation, and presents in that space a rugged outline of steep cliffs formed into coves, the inner parts of which are filled with large loose stones, the cliffs decreasing rapidly in elevation as they approach the point.

A low coast of very broken outline then succeeds, running first southward two-tenths of a mile, and then eastward nearly one-third of a mile to the meridian of the old horizontal mill on the little eminence near the church. It is fronted by innumerable rocks which project from the shore in narrow ridges of broken lava to an average distance of about 200 yards. In strong winds the sea rolls over these in enormous breakers; the danger is more limited, however, than it appears to be, since they do not extend under water, but are all visible at low tide and have 5 or 6 fathoms close up to them.

These reefs terminate about 130 yards west of the meridian of the mill, where the coast shews several bold black basaltic little bluffs, steep to. The best landing (which is only practicable in fine weather,) is in a small cove on the west side of the most western of these bluffs; and it is advisable to lie off and wait for the assistance of a native boatman to pilot you into it. At the head of the cove is a small dilapidated breastwork designed for a battery, distinguished by a flag-staff; and on the beach near it a few fishing-boats are occasionally hauled up.

Immediately in front of the basaltic bluffs there is a space from 250 to 300 yards in length free from outlying rocks, but beyond this the cliffs gradually rise, trend to the north as far as the little bay, and stony

beach before the village; and the coast again bristles with detached rocks above and under water, which extend out 200 yards from it.

A short distance to seaward of these rocks, the church bearing N. 31° W., distant about three-tenths of a mile, lie three patches of sunken rocks, on which will be found 3 and 4 fathoms water, they are steep to, having 13 fathoms close beside them.

There are no dangerous rocks before the stony beach in front of the village, but the surf which usually plays upon it makes the cove to the westward of the mill a preferable landing place generally.

In the parallel of the Sugar Loaf Rock at the distance of a quarter of a mile there will be found a depth of 11 fathoms; at half a mile 19 fathoms; at three quarters 25 fathoms; at one mile 30 fathoms; at one mile and a quarter 35 to 40 fathoms; and thence to one mile and three-quarters it deepens rapidly to the edge of soundings.

On the west side of Ponta de Pesqueiro-alto, off the black basaltic bluff, and close to the rocks that lie at its western extremity will be found 11 fathoms water; south-west of the bluff two-tenths of a mile, 7 fathoms, and keeping on that bearing at one quarter of a mile from it 10 fathoms; at half a mile 64 fathoms, rocky; and at less than a mile no bottom with 200 fathoms.

In the meridian of the same bluff the bottom is rocky and uneven, with 6 and 7 fathoms water close to the breaking rocks, which lie in front of it on that bearing; at half a mile off it 23 fathoms, and then it falls suddenly to deep water, the edge of soundings being within one mile of the shore. The same kind of rocky uneven bottom continues the characteristic feature of the bank quite round the low point, going off flat in some parts for about half a mile, and then dropping rapidly to deep water.

In the meridian of the church, at a quarter of a mile from the land, are 12 fathoms; at half a mile 38 fathoms; at three-quarters 55 fathoms; and at one mile no bottom with 200 fathoms: with the church bearing north-west, one quarter of a mile off shore are 13 fathoms just outside the 3 and 4 fathom patches abovementioned; at half a mile 23 fathoms; at three quarters 50 fathoms; and at one mile 150 fathoms.

With the church bearing due west, and continuing on its parallel at a quarter of a mile from the shore will be found 10 fathoms; at half a mile 14 fathoms; at three-quarters 20 fathoms; at one mile 23 fathoms; at one mile and a quarter 60 fathoms; at one mile and a half about 100 fathoms; at one mile and six-tenths no bottom with 200 fathoms.

The best anchorages are on the western side between the parallels of the Ilheo de Mulher and the Sugar Loaf Rock in 30 to 35 fathoms, fine brown sand, about one mile off shore; and on the eastern side in 25 to 30 fathoms sandy bottom, about half a mile due east of Ponta de Casa.

These are the anchorages mentioned by Tofino, but we cannot advise the adoption of them, or of any others the island may afford, except as a matter of necessity.

It has no fuel to spare, no facilities for watering, nor indeed anything

to offer which cannot be obtained more abundantly and conveniently at Flores; whilst from its size and form it affords little shelter from wind or sea.

The flood tide sets upon the island N. 30° E., and the ebb in the opposite direction with a velocity at springs, under ordinary circumstances of about one mile and a half per hour; and when the movement of the waters is in opposition to a gale of wind it occasions a very high confused sea as it sweeps over the rocky uneven bottom at the north and south points.

---

## Outline of the Voyage of H.M.S. Enterprize and Investigator to Barrow Strait *in search of Sir John Franklin.*

Her Majesty's ship *Investigator*, was built at Greenock, and launched in January 1848, from whence she was towed to the Thames, and strengthened in Mr. Green's building-yard at Blackwall, under the inspection of — Rice, Esq., a gentleman from Portsmouth dock-yard, who had superintended the equipment of former Polar expeditions.

The *Investigator* is 340 tons burden, 118 feet in length, 28 feet beam, and 6 feet in height on the mess deck. She was barque-rigged, and protected from any violent pressure of the ice on either side by solid sponsons or chocks projecting three feet; about the bows by a sheeting of plate iron. Her figure head was intended to represent the head and shoulders of a walrus. On each side were fitted three pairs of wooden davits, to which were hoisted two cutters of 25 feet, three whale boats and a dingy; over the stern being carried the captain's gig: inboard between the fore and main masts was stowed the pinnace, a boat 31 feet in length, 10 broad, and of 10 tons burden, fitted with a locomotive engine of 10-horse power, constructed by Messrs. Beal of Greenwich.

The crew on sailing consisted of fifteen officers, eighteen petty officers, one carpenter's crew, twenty-two able seamen, three stewards, and one sergeant, one corporal, and six privates of Woolwich division.

The names of the officers were—Edward S. Bird, *Captain;* Melville G. H. W. Ross, Frederick Robinson, and John J. Barnard, *Lieutenants;* Robert Anderson, *Surgeon;* James D. Gilpin, *Clerk-in-Charge;* Edward Adams, *Assistant-Surgeon:* John H. Allard, *Second-Master;* Lewis J. Moore and Samuel G. Cresswell, *Mates;* Robert L. Tracy, *Master's-Assistant;* William Tather, *Ice-Master;* John Bell, *Engineer;* Thomas Osbourne, *Boatswain*; William Dean, *Carpenter.*—Total number forming the crew was sixty-seven.*

* The officers of the Enterprize were Sir James Clark Ross, *Captain*; R. I. Le M. McClure, F. L. McClintock, and W. H. J. Browne, *Lieutenants*; W. J. Couldrey, *Master (Act.)*; J. Robertson M.D., *Surgeon*; J. Biggs, *Paymaster and Purser (Act.)*; H. Mathias, *Assistant Surgeon*, Stephen Court, *2nd Master;* E. Whitehead, *Clerk.*

The following is a list of the provisions received on board from Deptford Victualling-yard, being calculated to last three years:—

| | | | |
|---|---|---|---|
| Biscuit | 27615 lbs. | Currants | 168 lbs. |
| Rum | 2085 gall. | Pease | 171 bush. |
| Brandy | 112 " | Oatmeal | 12 " |
| Preserved Meats | 30924 lbs. | Sugar | 12293 lbs. |
| " Soups | 16468 pints. | Chocolate | 4970 " |
| " Vegetables | 10972 lbs. | Tea | 1238 " |
| Salt Beef | 12464 " | Lime Juice | 4805 " |
| " Pork | 16640 " | Pickles | 4830 " |
| Flour | 61360 " | Cranberries | 1370 " |
| Suet | 1008 " | Wine for Sick | 220 gall. |

Which were issued to all hands immediately on quitting England according to the following scale of victualling for fourteen days.

| Days. | Biscuit. | Rum. | Salt Beef. | Salt Pork. | Presrvd Meat. | Presrvd Soup. | Presrvd Veg. | Flour. | Pease. | Chocolate. | Tea. | Sugar. | L. Jnice. | Sugar. | Pickle. | Cranberrie | Vinegar. | Oatmeal. | S. Barley. | Pepper. | Mustard. | Salt. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Sunday | 1 | 1 | ... | ... | ¾ | ½ | ... | ... | ... | 1 | ¼ | 1½ | 1 | 1 | ... | 2 | | | | | | |
| 2 Monday | 1 | 1 | ¾ | ... | ... | ... | ... | ¾ | ... | 1 | ¼ | 1½ | 1 | 1 | 2 | ... | | | | | | |
| 5 Tuesday | 1 | 1 | ... | ... | ¾ | ... | ½ | ... | ... | 1 | ¼ | 1½ | 1 | 1 | ... | ... | | | | | | |
| 4 Wednesday | 1 | 1 | ... | ¾ | ... | ... | ... | ... | ¼ | 1 | ¼ | 1½ | 1 | 1 | 2 | ... | | | | | | |
| 5 Thursday | 1 | 1 | ... | ... | ¾ | ½ | ... | ... | ... | 1 | ¼ | 1½ | 1 | 1 | ... | ... | | | | | | |
| 6 Friday | 1 | 1 | ¾ | ... | ... | ... | ... | ¾ | ... | 1 | ¼ | 1½ | 1 | 1 | 2 | ... | | | | | | |
| 7 Saturday | 1 | 1 | ... | ... | ¾ | ... | ½ | ... | ... | 1 | ¼ | 1½ | 1 | 1 | ... | ... | | | | | | |
| 8 Sunday | 1 | 1 | ... | ¾ | ... | ... | ... | ... | ¼ | 1 | ¼ | 1½ | 1 | 1 | 2 | 2 | | | | | | |
| 9 Monday | 1 | 1 | ... | ... | ¾ | ... | ½ | ... | ... | 1 | ¼ | 1½ | 1 | 1 | ... | ... | | | | | | |
| 10 Tuesday | 1 | 1 | ... | ¾ | ... | ... | ... | ... | ¼ | 1 | ¼ | 1½ | 1 | 1 | 2 | ... | | | | | | |
| 11 Wednesday | 1 | 1 | ... | ... | ¾ | ½ | ... | ... | ... | 1 | ¼ | 1½ | 1 | 1 | ... | ... | | | | | | |
| 12 Thursday | 1 | 1 | ¾ | ... | ... | ... | ... | ¾ | ... | 1 | ¼ | 1½ | 1 | 1 | 2 | ... | | | | | | |
| 13 Friday | 1 | 1 | ... | ... | ¾ | ... | ½ | ... | ... | 1 | ¼ | 1½ | 1 | 1 | ... | ... | | | | | | |
| 14 Saturday | 1 | 1 | ... | ¾ | ... | ... | ... | ... | ¼ | 1 | ¼ | 1½ | 1 | 1 | 2 | ... | | | | | | |
| | 14 lb | 14 gl | 2¼ lb | 3 lb | 5¼ lb | 1½ pt | 2 lb | 2½ lb | 1 pt | 14 oz | 3½ oz | 21 oz | 14 oz | 14 oz | 14 oz | 4 oz | As may be required. | As may be required. | 10lbs per week for whole crew. | ½lb. per week for whole crew. | ½oz. per man per week. | As may be required. |

We were supplied with sixty tons of coal, fifteen tons of coke for the steam launch, and a quantity of fire-wood; together with a large store of warm clothing to be given gratuitously to the crew, viz.—

| | | | |
|---|---|---|---|
| Mitts | 420 pairs. | Blue box cloth Jackets | 210 No. |
| Comforters | 420 No. | " " Trousers | 210 pairs. |
| Boot Hose | 420 pairs. | Thick G. W. Frocks | 210 No. |
| Welsh Wigs | 210 No. | " Drawers | 210 pairs. |
| Buffalo Robes | 20 " | Sou' Westers | 200 No. |
| Boots, Fishermen | 210 pairs. | Seal Skin Caps | 20 " |
| " Carpet | 140 " | Woollen Blankets | 100 " |
| " Seal Skin | 50 " | Racoon Skin Blankets | 20 " |
| Seal Skin Gloves | 100 " | Green Crape | 144 yards. |

Also a number of adzes, several kinds of knives, looking glasses, needles, beads, snuff, &c., intended for presents to the natives.

On the 1st of May, Lord Auckland, Admiral Dundas, and Captain Milne, Lords of the Admiralty at the time, inspected the ships at Woolwich; a few days after which we moved down the river to Greenhithe, where the ships were swung and the compass deviations ascertained. On the 10th the crews of both ships were paid six months in advance, and the wages due to them up to that time; and on the morning of Friday the 12th we started in tow of two steam tugs, which accompanied us to abreast of Aberdeen; when their fuel being expended they were dispatched to procure a fresh supply, but during their absence a southerly wind springing up, carried us through the Pentland Firth; and on the 19th the pilot left us off the Island of Road, taking with him our farewells to the friends we had left behind us.

The passage across the Atlantic was somewhat boisterous, and the *Investigator* being very deep and much crowded, plunged violently, making worse weather of the gales than would have been the case had she been in better trim.

A leak was now discovered forward in the breasthook, caused by the workmen having neglected to drive a treenail where a hole had been bored, causing when the vessel pitched the admission of much water.

Both ships kept company throughout the voyage, and on the 24th of May, being the anniversary of the Queen's birthday, a supply of clothing was ordered by signal from the *Enterprize* to be given to each person on board, consisting of one boxcloth jacket, one pair do. trowsers, one thick white frock, one pair do, trousers, one welsh wig, one sou'-wester, two pairs of worsted mitts, two comforters, two pairs of boot hose, one pair of fisher's boots.

When near the east coast of Greenland we were detained many days by foggy weather and light adverse winds, preventing our getting round Cape Farewell.

On the 7th of June a long stream of ice was seen extending from the weather bow as far as could be seen to leeward. At first it seemed we were about to push through it, but on a nearer approach it appearing very compact and heavy we kept away and ran to leeward of it, passing so close along its edge that one might have leaped on it from the ship. It was about a quarter of a mile in width, very hummocky, of a pale green and bluish colour. Being the first ice seen by many of us, we gazed on it with much interest; the sun at the time was shining most brilliantly, and the sea dashing huge pieces against the more solid mass, gave it a grand and animating appearance.

The sea during the day had been particularly tranquil, and those on board acquainted with these seas, predicted, long before any ice was seen, that we were under the lee of a quantity; and no sooner had we passed it, then by the motion of the ship and the increased force of the wind, we became sensible of the effects of a large body of ice in tranquillizing the waves.

Nothing to be noticed occurred until our arrival at the Whale Fish Islands, which was on the 22nd June. In the morning the wind left us when full 15 miles from the anchorage, and calm continued till the even-

ing, when a breeze springing up we worked in to the anchorage situated between three islands, from which a vessel may sail with the wind in any direction.

During the time we remained becalmed; a whale rose to the surface, and passed near to the ship; and from this time till we went into winter quarters, I only saw one other, and I heard of only a few others being seen at a distance. This surprised us all, Davis Strait being so well known for its whale fishery. I have heard it said that these fish are leaving the Polar seas, and it is conjectured from the number seen in the Pacific that they are resorting there. The Whale Islands are situated in lat. 68° 59′ 13″ N., long. 53° 13′ 0″ W., on the southern side and close to Disco; and are occasionally frequented by whale ships on their way up and down Davis Strait.

Here the Danes send a person whose business it is to collect oil, skins, &c. from the natives in exchange for clothing and other articles of much value to the poor Husky; and this being the only means afforded them of trafficking, the Dane obtains at his own valuation, the best and most of what the native has to dispose of. These collections are annually conveyed to Denmark by vessels of that country, which visit some other places on the Greenland coast for similar deposits.

At the time of our touching here the snow had in a great measure dissolved; the whole sea in the neighbourhood was, however, filled with bergs, some of which were very large and in a variety of shapes.

The entire country appears to be one mass of rock, much resembling granite, though darker; with deep fissures in every part, evidently caused by the snow dissolving and forming into deep pools of water, which penetrating the surface becomes frozen in the winter, and rends the cliffs.

No vegetation is to be seen saving a small quantity of short grass and coarse brown moss on the hills. In this moss numerous birds lay their eggs: the tern in particular, leaving them, seldom more than two, exposed, and perfectly unprotected. Parties of us frequently set out to collect these, for although small, they are very sweet to the taste. The shell is of a dark speckled brown, and scarcely to be recognised when on the ground, from the resemblance in colour to the moss. The birds hover overhead in great numbers, making a squalling noise not unlike that of a gull.

There are a few Esquimaux at the Whale Islands living together on the most verdant of the group. They bear a perfect resemblance to the representations and description given of them, but on their first appearance it occurred to me, that in features they are much like the Chinese.

Their canoes are very neatly and ingeniously constructed of seal skin, about 10 feet in length, and certainly not more than 1½ feet in width, covered completely over with the same material, except in the middle, where a hole is left sufficiently large to allow a person to pass his hips through. The upper dress is made to cover over any remaining space, and prevent the possibility of any water getting in; for it continually happens, since the canoe is not more than three inches out of water,

that with the least topple of a sea she is washed fore and aft. Great caution is required to maintain one position, for the least inclination of the body to either side capsizes these frail vessels; and a marine of the *Investigator*, who attempted to sit in one, instantly turned over, and would have been in some danger of being drowned, had not his shipmates been at hand to extricate him from his critical situation.

The natives use but one paddle, which is about six feet long, having a blade at both ends, with which they propel themselves through the water very rapidly, passing with ease a whale boat pulled by five persons.

Their means of catching seals on which they principally depend for subsistence, consists of a lance made of whalebone, frequently having an iron barbed or jagged end, secured to a line neatly made from the entrails of the deer, and made fast to a seal skin bladder, which on striking the animal is passed overboard; and the Husky again looks out for its rising to the surface for breath to kill it.

The huts which these people inhabit during the winter are partly underground, with sides of turf, surrounded and covered with snow, and lined with skins of various animals. The odour proceeding from these, and the refuse of the blubber, which is never removed, is so offensive that one is glad to depart from them as soon as possible. To warm and give light to these wretched hovels they hollow out an oblong piece of bone a foot or eighteen inches in length, which is filled with oil, using as a substitute for wick a small portion of dried moss.

Much amusement was afforded us here in shooting; duck, loon, dovekys, tern, and other birds being numerous, resorting to these unfrequented shores during the summer months to breed, and migrating to a more temperate climate on the first approach of winter. We usually set out in the evening in one of the light boats, and continued away till late next morning, bringing on board a sufficient quantity of game to be able to give some to all hands.

Musquitoes were numerous at these islands, and of a large kind. Nothing could be more delightful than the weather we experienced during our stay at the Whale Islands: the air was serene and mild, and the sun shone from a cloudless sky during the day and night.

On the evening of the 30th of June the wind having sprung up fresh from the southward, and the ships having been again swung and the necessary observations for magnetic deviation completed, we wayed and made sail in company with the *Enterprize*, carrying the breeze to the northward of Disco, where it became calm, and continued for many days with Hare Island in sight of both ships.

On the afternoon of the 5th of July, five whalers were in sight; they were under a steep land, named by one of the early voyagers of queen Elizabeth's time "Sanderson's Hope", and consequently made us out to seaward long before they were seen from our crow's nest. They were standing towards us, and at 6h. P.M., being close to, boats were despatched to each of them, to gain whatever information they might be able to give of the state of the ice to the northward.

They all reported that at present it was impossible to get beyond Uppernavik, that they had all been detained there five weeks in expectation of its breaking up, but it had not altered the least in appearance since that time. Three of the nearest ships as they passed gave us three encouraging cheers, which were as heartily returned, and one of them the *True Love*, very considerately sent a boat for any letters we might be desirous of sending by her to England.

On the following night we succeeded in working up under Sanderson's Hope, where for the first time we made fast to an iceberg: but in so doing an incident occurred which might have been attended with serious consequences. On the boat reaching the berg, the men in her jumped out, and proceeded with pick axes to make a hole in the ice for the fluke of the anchor to rest in. This was done probably with too great violence, for the ice though apparently very tenacious, separated in an instant, and turned over, precipitating three men into the water, and another forcibly on to a fragment some distance from the fracture; hurting him on the elbow which was afterwards very troublesome. The boat from the violent and sudden motion was all but swamped, fortunately nothing worse resulted to the officer and man that were in her, than a thorough drenching,

The anchors used in making fast to ice are two feet or more in length by eight inches thick, constructed something after this manner. ⇔

During the summer months, the sun being continually above the horizon, the weather is mild and causes a gradual waste among the bergs, huge blocks of ice then separating from them, they become top-heavy, and fall over with a tremendous noise, not at all unlike the report of a distant cannon. Indeed, so much so, that on one occasion when away in one of the whale boats on a shooting excursion, so much did this noise resemble the discharge of a gun, that two of my companions and myself imagined it was a signal from the ship for our return, and hastened back, but on getting on board, and making enquiry we ascertained this was not the case, as no gun from either ship had been fired during our absence.

From the constant action of the water against that part of the berg which has been under water, it always presents, on its upsetting, a very regular and rounded appearance, frequently not at all unlike the bottom of a huge ship.

On the afternoon of the 6th of July, the ships were moved to Uppernavik, meaning "Summer residence," about ten miles to the northward of Sanderson's Hope. The ice presented here a closely packed mass, apparently boundless in extent, terminating only with the visible horizon, and studded with bergs of all dimensions. The bright glare reflected from the rays of an unclouded sun on this sea of ice was most trying to the sight; and refraction depicted forms and shapes in every variety of manner the fanciful imagination could invent.

The Danes have here another of those settlements established along the Greenland coast for the collection of oil, skins, &c.

The buildings forming the settlement comprise four dwelling-houses

occupied by the governor, a Roman Catholic Missionary, a carpenter, and a person sent here last year from Denmark to superintend the working of some black lead pits, which have been discovered in the neighbourhood. These, however, owing to the machinery with which they were to have been started, becoming injured on the voyage from Europe, have not yet been commenced.

While at Uppernavik I paid a visit with some others to the governor, as he is styled, for the purpose of obtaining from his store a few of the articles with which it is stocked: such as fancy Dutch pipes, packets of tobacco, lucifer matches, &c. He told us that he was born at Lievely, in Disco, the principal of the eight Danish settlements on the coast, of which this is the farthest north.

He is married to a woman of native origin by a European father; they have four fine good looking children; and the interior of their house had a degree of cleanliness and comfort about it that I was unprepared to see on the shores of the Arctic regions.

The good wife bustled herself about to make some tea for us, giving us with it some excellent bread and butter, while her husband, who speaks sufficient English to make himself intelligible, kindly responded to our many enquiries.

He explained to us that the preceding winter had been excessively cold, enabling him to drive in his sledge over eighty miles of ice to seaward; but that the two former seasons had been comparatively mild, and no travelling ice then existed near Uppernavik.

He also mentioned among other things, that the natives here, with four exceptions, professed Christianity, and those were three old men and a woman, who were unwilling to depart from the superstitous notions they had all their lives entertained respecting the moon; which before their acquaintance with Europeans all of them had venerated.

The priest I did not see, but our friend represented him to be an excellent man! and his voluntary residence among these people for the sole purpose of doing good, confirms the favorable testimony given of him: he had established a school, and had succeeded in teaching a few of them to write.

There are many huts here, and from the numerous packs of yelping dogs, which are employed in sledging and much prized, I should suppose this tribe of Esquimaux was large. Their inducement in residing at Uppernavik being for the disposal of skins and oil to the Danes.

A native here sold us some venison in exchange for a small quantity of biscuit; they run the deer down with their dogs, and report them to be numerous, among the hills forty miles distant. Its flavour was uncommonly good and much esteemed.

At Uppernavik and also at the Whale Islands were the graves of several English sailors, who had died whilst serving on board whalers; the head stone recording their death being the only evidence of the place ever before having been visited by our countrymen.

On the afternoon of the 13th a Danish brig arrived from Denmark: as soon as she had anchored the captain of her went on board the *Enterprize*, and gave some imperfect intelligence of a war existing on the

continent of Europe, but for want of an interpreter the information was ill understood. We had for many days been engaged in writing letters to be left with the governor to transmit to Europe: and the berg to which we were attached breaking up and rolling, giving every symptom of overturning hastened our departure, and that same evening our final adieus were made up and intrusted to the safe keeping of the commander of the brig. The ships getting under way as soon as the boat returned from her.

On the 20th we stood inshore to the eastward among numerous islets, forty-five miles within the boundary line of west coast of Greenland as laid down in the present charts. An immense glacier was here observed extending completely along the imaginary coast line, on a level with the steep and elevated land. In the evening we brought up alongside the edge of a very extensive but irregular floe, apparently connected with the glacier which was distant about five miles.

The evening was cloudy but perfectly still, with a little small rain; but in the middle watch, which was uncommonly thick, a strong gale suddenly sprang up with the change of tide, driving the ice furiously out at the opening we came in by. At one time the ships were in danger of getting nipped: we escaped most fortunately with only a few heavy knocks; but the *Enterprize* had two of her boats injured, one of the quarter boats—a cutter was completely squeezed together.

We whirled about in the tide, which was very rapid, and were almost unmanageable for some hours, endeavouring to avoid the bergs which were enormous; and it was not till slack water that the ships were again secured to bergs aground.

The morning showed a complete transformation in the appearance of the place; numbers of the bergs we had seen the evening before having been swept to sea with the current, and now exposing a complete view of the glacier. Its magnitude surprised us all, it appeared to be formed between high unconnected land as far as could be seen; making it seem, as has been supposed that, Greenland is composed of a vast number of islands.

In this way the bergs are formed, for the glacier increasing in size with each winter, many overhanging projections are formed, the enormous weight of which separating from the "factory" takes with it in its disjunction a considerable body; the whole falling over with terrific roar into the sea. The position of Glacier harbour, as it was named, was lat. 73° 42′ 0″ N., long. 55° 20′ 0″ W.

For many days the ice completely obstructed our progress, and we kept dodging about a remarkable bold headland, on the summit of which stands a perpendicular rock, called the "Devil's Thumb," from the extreme difficulty ships have ever experienced in getting forward when in its vicinity.

Many have been the attempts made it is said by the crews of whaling vessels to gain the summit of this singular rock, which stands erect, of a considerable height, and entirely apart on a steep projection overlooking the sea; but from the formation of the sides of the cliff on which it stands all their efforts have been unsuccessful.

On one occasion we took the ice, and forged ahead a considerable distance; but as we frequently observed when among the ice, notwithstanding we entered with a strong breeze, before we had proceeded two miles from open water the wind fell, it became perfectly calm, and the exertions of all hands were required to clear a channel and warp ahead. This happened in the present instance, but the *Investigator* was got into clear water again late that same night; the *Enterprize* however, having taken the pack in a different lead, remained closely beset the whole of the next day, when the ice partially separated, and she ran back round the edge of it, when we rejoined her. This was the more provoking, as a fine southerly breeze prevailed at the time, and we could have made good progress, had not our consort been "in a fix."

In this navigation much attention is required in taking advantage of every change and opening that may appear in the ice. It continually happens owing to very light airs and thick fogs, which are most frequent in the summer, that for days it is impossible to make any advance, in consequence of the strong current setting out of Lancaster Sound, and down Baffin Bay; when the exertions of the crew are required in the laborious occupation of towing, which with such heavy ships is at the best but slow progress.

The *Lord Gambier*, whaler, joined us on the 21st of July, and remained in company some days, but parted near the "Three Islands of Baffin" in a stiff breeze; being afraid, we concluded, of the ice to the northward which appeared very heavy. The crew of the *Gambier* captured a bear while with us, being the third they had killed within a few days. This was the last ship we saw.

On the afternoon of the 5th of August Melville's monument, a remarkable peak so named by Sir John Ross in 1818, was distinctly observed: and the next day by hard towing we made fast to a berg off Browns Islands, where we remained for some days, the wind during part of the time blowing hard from the north-west and driving a deal of hummocky ice completely around us.

Melville Bay is considered one of the most dangerous localities of Baffin Bay or Davis Strait for a ship to get beset in; and more whaling vessels have been crushed and wrecked here, than in any other part of these seas, from the circumstance of the ice in clearing out of Barrow Strait being driven across by the north-westerly winds, and pressed in by the quantity of water which makes off Lancaster's Sound, and so well known by the name of the "West Waters."

On the 8th, near midnight, a bear was seen on a floe, about a quarter of a mile astern of the *Investigator*. It was some time before the officer of the watch would permit a boat to be lowered to go in chase; but a number of the men were on deck and anxious to be after him.

Two of the whale boats were then immediately sent in pursuit of Mr. Bruin, but the fellow scampered over the ice at a most surprising rate, and would certainly have escaped, had he not unwisely taken to the water; when the boat farthest in advance soon came upon him, and notwithstanding he dived, and was for a few minutes lost to sight, yet he was eventually killed; having been first pierced with a lance through the

back, and then shot in the head. On receiving the first wound he wrenched the lance from the hand of the ice-master, who struck him, and turned fiercely on the boat, when, as he was about to place his paw on the gunwale he was shot dead.

The skin was of a dingy white colour, with long shaggy hair, and the measurement as follows, viz. Length from nose to tail 7 feet 6 inches; height of shoulders 3 feet 6 inches; girth behind fore leg 5 feet 7 inches; breadth of fore paw 7 inches; ditto hind paw 7½ inches; weight 6 cwt.

The haunches of the beast were kept, and many on board, I among the number, partook of the flesh, which before cooking was of a dark red colour, and very coarse; but when dressed and well seasoned was not at all unpalatable.

The meat of the bears which, however, we afterwards killed, was little esteemed, and seldom touched when at table in the gun-room mess; but no doubt if one was hungry, and could divest himself of the prejudice attached to the eating of carniverous animals, the flesh would not be known from that of other beasts.

On the 11th we made a start for the opposite coast, with a fresh northerly breeze, but this soon failed us, and we were again much impeded by floe-ice, thick foggy weather, and calms.

In the afternoon of the 12th we warped alongside an enormous berg, lying beside which the ships looked most ridiculously small. The changes in the weather come on very suddenly, and that same night it blew very strong, and the sea getting up rendering it dangerous to remain, we cast off and made sail, but the *Enterprize* in slipping lost two or three ice anchors and some ropes.

On the 16th the *Enterprize* killed a bear. It was asleep on a piece of ice, and not perceived till after it had been started from its slumbers by the ship striking against the floe: and on the following day, three others were descried on the ice by "Old Crow's Nest." Boats from each ship were instantly lowered for the chase; hearing the hubbub on deck, I hastened from below, and was just in time to jump into one in want of a bowman. After a smart pull we came up with one of them, and on the second shot he was killed. Our other boat was equally successful, capturing the second, after a good chase; but the third and largest escaped, and unfortunately the *Enterprize* got none.

The skins of all we captured were well cleaned of flesh and towed overboard, after which they were packed in tight casks filled with brine.

The ice in Melville Bay, and its neighbourhood, being very heavy and in large floes, it was not always possible to avoid striking it: when this happened the shock it occasioned was very sudden and violent, causing the bells to ring and every moveable to bound from its position.

The sun generally shone most brightly throughout the day, the weather somewhat cold, but nevertheless cheering and delightful: distant objects were seen most distinctly, refracted in a multitude of shapes, immense icebergs being inverted, and frequently appearing suspended in the air some feet from the surface of the sea.

The sun was noticed to have first gone below the northern horizon for a few minutes on the 8th of August.

On Sunday afternoon, the 20th of August, we reached open water in lat. 75° 23′ N., long. 58° 30′ W., it blowing at the time a good north-westerly breeze, and from the sea that was on gave certain indication of the Sound being clear. We continued to run across Baffin Bay without seeing a particle of floe-ice, making the land near Ponds Bay on the 22nd.

We remained off Ponds Bay, with a gale of wind dead off shore for two days, merely getting as close to the ice with which it was beset as practicable, and not otherwise communicating.

From each ship a cask was now thrown overboard daily, containing a tin canister, within which was secured a paper, giving a short account of our proceedings; and the position of the ships on that particular date: it was addressed to the secretary of the Admiralty, London, with a request that the finder would transmit it to London, with the date and the place in which it was picked up.

The stiff breeze we had was succeeded by a calm which continued for a day or so while in sight of Cape Liverpool. A party from the *Enterprize* landed in Possession Bay, and removing a cairn of stones which was piled there, picked up the neck of a wine bottle, in which several scraps of paper were seen among the mud with which it was choked. On being taken on board washed and dried, it turned out to be a notice left there on that very day (30th of August) in the year 1819, from H.M. ship *Hecla*, under the command of Sir Edward Parry, when he discovered and sailed up Barrow Strait, down Prince Regent Inlet, and that same year wintered at Melville Island.

At the entrance of Lancaster Sound, a fore and aft carling, evidently once belonging to a whaler, was picked up; and a few days afterwards a grating was found by the *Enterprize;* but without any mark by which to identify them as the property of any particular ship.

The weather we now had in Barrow Strait was very foggy, and it being considered probable that, the people in whom we were in search of, might be in their boats, making for Davis Strait, signal guns were fired throughout the day every half hour from one of the ships; and at night as soon as it had become somewhat dark, rockets and blue lights were also let off at like intervals.

During the time we were in sight of Cape Liverpool we had nothing but light baffling winds, which were succeeded on the 2nd of September with a fine easterly wind, rattling us past the south shore at a famous rate, but when in sight of Cape York, the eastern headland of Prince Regent Inlet, both ships hove to, keeping Leopold Island in sight: and for the next few days we did not greatly alter our position.

We stood across the Strait, for the purpose it was presumed of looking out a harbour for the winter, should we not be successful in finding one elsewhere; for the summer was now spent, and the young ice every where making, gave warning of the near approach of winter: but when close in with Maxwell Bay on the 7th, it came on to blow very hard from the

northward, and obliged us to stand off again; and when Leopold Island was next seen, the narrow passage between it and the main appeared considerably freer of ice than it had before: accordingly, at noon next day (8th) the *Enterprize* stood in for it, we following: but the ice though much separated by the late gale was very heavy, and the ships in forcing their way got some hard knocks, sufficient to stave the bows in of an ordinary ship, making our masts to literally shake with the repeated shocks.

We had got through the floe, and were passing under the supposed north-east cape of America, when suddenly and unexpectedly a quantity of ice came down upon us from round the island, driving rapidly down Prince Regent Inlet, and in a few minutes completely surrounding us, without any power of extricating ourselves as it was perfectly calm. In this condition being firmly beset both ships passed the night, the following morning bringing with it a northerly gale.

A circumstance then took place in trying to release the ships which I will relate.

---

## Chat about the Florida, or, Gulf Stream; *and the Level of the Mexican Sea.— By Argonaut.*

There is no theme in this era of progressive improvement which has remained so little heeded as the theory of currents of the ocean.

If you resort to books of recent, or indeed of any date, for information, you find generally the same tale about wind, the rotary force of the earth's diurnal motion acting mechanicaliy, and differences of level in in the ocean, being the causes of currents.

The popular belief is that wind alone create those movements which are erratic; and that some unknown cause perpetuates the perennial or permanent currents.

It has also been inferred that disarrangement in the level of the Caribbean Sea, and Gulf of Mexico, creates the Gulf Stream, and also periodically increases its velocity. These are the opinions usually given; but, they require confirmation. My object in this chat is to endeavour to show that they are open to objections.

To be the follower of a theorist, does not always imply that the theory meets with full approval; and often, perhaps, without any approbation whatever, an opinion is followed "for want of a better". Writers repeat a system which has been borrowed from others, certainly, very often, from no conviction which they are at the pains to prove to their readers, after the same fashion that political "men fall into through an inveterate habit of official assertion," as a late baronet said. The only apparent force they attempt to give is that, so-and-so, "cannot be doubted"; or, "there is little doubt that such is the case," from some inferred cause as, for instance, the higher level of one sea over another.

I believe there are few readers who have not been struck at the ease

with which many writers enlist abstract points, that have been merely inferred in support of their opinions, or the opinions of others which they follow, without heeding other principles which may be in active operation.

The coincidences of circumstances are eagerly seized as undeniable evidence in proof of a conclusion; and very clever practical men are found dropping into this careless and slovenly mode of perpetuating opinions, which have never been satisfactorily proved, as truths. This is the mode, *ex cathedra*, so distasteful to readers, which is often employed by the scientific expositor!

Until we know the variety of parts that electricity plays in the economy of nature, and how far it affects the variations of the pressure of the atmosphere, which there is reason to believe has great influence on the velocity of the currents, if its action does not often cause them, until we are at the pains to trace and arrange the positions and directions of the sub-marine mountains and valleys, and lay these down upon a chart, together with the lines of the perennial currents, until we discover what effect difference of temperature in the water has upon the globules of the fluid, until we have done all this, and perhaps more, we shall not perfect a theory of Oceanic Currents, with respect to the causes of their original impulse, their directions, and the fluctuations of their velocity.

It is a hard matter to divest the mind of prejudices, or of pre-conceived notions long entertained. The idea of a single wind creating a current probably originated with the early navigators; and has held its place from its plausibility. But it seems impossible for an observant seaman of the present day, to come to any other conclusion than that a wind acting alone is unequal to the production of a current.

That gales blow without attendant currents, appeals to our common sense. A single wind, blowing in a line with water already in motion will, perhaps, aid it; yet I have heard, or read, that the Florida Stream runs stronger (in the Strait) with an opposing wind blowing.

Opinions have been long held that the drift of the Atlantic (inter-tropical) raises the level of the Gulf of Mexico, and causes the Gulf Stream; and that disarrangement in the said Gulf, and the Caribbean Sea, gives it an increased velocity. The proofs, where are these to be found? What proves the "higher level of the Gulf"? We are to conclude that the current running through the Florida Channel is the *effect*; the constancy of the trade wind drift the *cause*, we are to suppose. Then there is the configuration of the land.

I do not presume to impugn the value of the writings of those exalted men to whom we owe so much of our acquired knowledge; but, it must be confessed that some matters are given to the world as truths, even by scientific and otherwise clever writers, with little support, and in some cases without any at all. Then, again, we have popular instructors, who profess to teach, without a single idea of their own, who, like a flock of sheep which follows the bell-wether, drop into the wake of some author who may have gained a name, and whose assertions pass current with the multitude, right or wrong.

There are still some persons who believe in the power of wind to create a current. In what state would the navigation of the ocean in the temperate zone be, if every gale produced its current? To use a simile, there would be a net-work of streams, that would prevent ships from traversing the ocean without means of determining their daily position by observation; dead reckoning, would be dead in practice indeed. The bottles, however, prove that the confusion of *sets* has not reached such a a complicated form in their lines. What are the facts? In traversing the ocean, we find a current one day, which ceases on the morrow. Passing on, we again meet with a stream, in another direction, perhaps, from the first one; and still progressing, we arrive at water without fluency; and so on throughout the "world of waters"; but it is seldom we drop into one stream from another running at right angles; although sometimes we may into an opposite one, when crossing these obliquely.

If the self-love of man will have that everything is made for his use, as he actually enjoys a share of the good services of the current, his claim to a bounty of Providence, being founded on good authority, we may not be disposed to question; but if a wind alone was the spring of its action it is to be apprehended he would find the streams too numerous for beneficial results as regards his ship-sailing propensity, and not improbably, perplexing to his mind in the right performance of that thankfulness which should be his first thought.

I confess not to understand what analogy can exist between the effects shown by wind on a narrow canal, and that on the open ocean. Yet, this which to an experienced seaman, and plain strait forward reasoner, appears so puerile, has been admitted.

The permanent higher level theory is still adherred to by some writers; very few seamen, I believe, subscribe to it. Occasional difference of level in confined portions of the ocean all admit; but a permanently higher level will be doubted by those, perhaps, who are unwilling to deny it outright.

There seems to be less difficulty in finding reasons against such an anomaly than for it, because certain effects would follow as a consequence, but which are no where apparent; nevertheless, without direct practical proof that can be relied on, and which cannot be contradicted or explained away, the opinion has been formed, and partially held to this day. Thus in a work published last year, it is asserted that the Gulf of Mexico is elevated 325 feet above the eastern portion of the Atlantic; and that this elevation may, perhaps, appear sufficient to explain the velocity of the Gulf Stream.

This assumption is at variance with the first grand law of a fluid, the preservation of its level.

A higher level of the Gulf is unnecessary for the maintainance of the Florida Stream; it may be fed by the drifts of the Atlantic, but their combined effect is altogether too weak to originate such a current; this I shall endeavour to make apparent as I proceed, and I hope to the satisfaction, at least, of seamen.

The celebrated stream is certainly a very curious feature in physical geography; and one of its purposes, according to my view of the matter,

designed by nature is, that of preventing accumulation of water in an almost enclosed sea; and that it effectually performs this office.

There is a design in everything of the creation. By diligence, it is permitted to man, in a certain extent, to discover for what purposes these things were formed. In the instance of the Florida Stream, we may see clearly, from the particular disposition of the land and sea, (look at the chart or map,) that if such a conductor of the superfluous waters were absent, there would probably be great disarrangement in the partially enclosed waters of that part of the world, from the constancy of a perennial wind. Now, as it is impossible that there can be mal-administration in nature, if we subscribe to the use (it may have more than one) here assigned to this great stream, we cannot admit the higher level of the Gulf, because that admission would imply irregularity, or insufficiency of purpose in the plan of nature.

There is not a single reason that I have ever heard brought forward to prove the fact entertained, or why such an anomaly should exist in nature; besides, as was said before, the assumption is opposed to the law of fluids.

There is another opinion akin to this; I have forgotten the authority; but I give it here for the benefit of those who "pin their faith" upon popular beliefs.

Being an old "stager" in the locality, and one who ever kept his eyes open, I felt surprise on reading the passage, but thought it little less extravagant than the permanent higher level. It is to the effect that the rains and supplies from the rivers discharging into the Caribbean Sea, raise its level.

The cebrated John Hunter's motto is a good one to be followed in these matters, "Think for yourself." So, I thought the Caribbean Sea rather a large area to be risen by rain or river water. I presumed to think that, in a clime where evaporation is so extensively powerful, that during the pluvial discharges in the two seasons, (not always regular in recurrence,) the sea remained at its usual natural level; and consequently, the great current was not affected by the waters which fell from the heavens.

In tracing effects to their causes, the coincidence of circumstances, no doubt may be enlisted in argument; but it requires some caution, and much thought, in drawing conclusions from the apparent argument of facts, as it may turn out by close inspection, that a circumstance which at first seemed to be the cause of an effect, in reality has nothing to do with it.

One observer being struck with the fact that the velocity of the Florida Stream is increased during, or immediately after the first rainy season of the Caribbean Sea, pronounces a supposed excess of water therein to be the cause of the activity of the current. But, I, as another observer, looking beyond the mere abstract fact, argue that such a cause is unequal to the production of such an effect, because there is an active counteracting principle which neutralizes it, and advance the more reasonable belief that the phenomenon arises from a change in the barometric pressure of the atmosphere.

Perhaps, there are no more astonishing phenomena in the creation, than the remarkable variation of opinion, and the versatility of thought in man. It is to these wonderful differences that we are to trace in individuals among the millions of the same organized beings, the diversity of character and of action? They are cast in one general mould; they have eyes to see; hearts to feel, (according to belief); brains to summon up thoughts (according to sensation); and reason to guide the judgment. Whence arise those variations? Culture does not satisfactorily account for them, or assuredly men of equal capacity, attainment, and acquired knowledge, and experience, would never differ.

The judgment is often guided by the eye. One gazer pronounces *seas* in the moon; another, *no water!* A current is seen to run always through a very narrow strait (the only one,) into a very extensive sea, elsewhere entirely encompassed by land. The conclusion is adopted that evaporation is so great within, as to keep this interior arm of the ocean at a *lower* level than the Atlantic outside, so that ships entering, sail down an inclined plane! Under-currents are *unseen;* therefore, in this instance they were unthought of.

Well, let us go on the other tack, to look for the consistency of human opinion in this mental voyage of discovery.

Another current is found to run, or, is supposed to run, into a less extensive, but still considerable, Mediterranean Sea, with a wider entrance; the other difference being that the one faces the west, and the other the east. Here, opinion is reversed; nothing is said of evaporation though the climate is partly tropical; but, the level of this sea is *higher* than the Atlantic, of which it is also a branch! Now, after these displays of human opinion, the reader, perhaps, will not wonder at the precedent queries. Be it remembered, that these opinions have been held by writers of talent, yet, I venture to say that presumptuous as it may appear, the common-sense of a practical seaman would pronounce either, a fallacy. "Knowledge is power"; and literary power, like that of station, may engender tyrrany. It is a blessing, however, that *thought* cannot be enslaved unwillingly; in that, we are all free, thanks (not to philosophers) to Providence.

To prevent undue disarrangement, Nature is always on the alert. Water forced through an inlet, into an arm of the sea, where there is but one opening, runs out *under* the surface. I have convinced myself of this by trial. I consider it a general law of nature; for if it were not so, low coasts would be flooded where a perpetual current exists.

As circumstances are in the Caribbean Sea, it appears to me that, the rain is balanced by evaporation, as far as regards the ocean, and the supply it receives from the land through the conducting troughs. I cannot compliment the advocates of the higher level on the lucidness of their philosophy, which appears to be a one-sided view, as they take no notice of the co-existence of this potent power,

The same objection is pressing, whether applied to the permanent higher level said to be occasioned by the drifts of the Atlantic; or to the periodical disarrangement from rain, or whatever else may be surmised;

unless the advocates can prove the insufficiency of evaporation for one of its designed purposes;—a point, I opine, rather beyond their power to accomplish.

I do not pretend to subtility of research in physical phenomena, and therefore, it may be from sheer ignorance that I never could discover of what possible use a permanently higher level of one sea over another could be, although I am perfectly convinced that nothing is, which is not right, and for some useful purpose.

I have been almost impudent enough to laugh outright, when I thought how funny it must be that the eastern Atlantic should persist against all reason and rhyme to *keep* a low position, joined as it is, north and south by a *continuous* ocean; or how *ever* it had learned mesmerism, so as to set the globules asleep!

If the level of the Caribbean Sea, or the Gulf of Mexico, was disarranged at any time, some effect would be observed upon the shores of the continent and islands. Ask an inhabitant of Jamaica, and it is probable he would tell you that any visible effect on the water-line occurred only during hurricanes, or earthquakes. Enquire of a Mexican of Vera Cruz, and his answer would be, only during norths and other storms. The analogical reasoning used by the advocates to support the theory, of the effect of strong westerly winds blowing up the English Channel, is not a parallel case to that which they endeavour to uphold, the superior level of the Gulf of Mexico. There are no tides, or very slight ones in the latter; and if such was the case in the former, it is probable the water would flow off sufficiently quick to prevent accumulation in the Strait of Dover. But the fact is that, the heaping up of the water there, does not rest solely on the effect of westerly gales, but also from two opposing tides meeting. There is no relative bearing in the two cases, and it is surprising that any writer of common intelligence should make the comparison.

By way of convincing the sceptics, old writers on cosmography were wont to speak of the effect of the human breath on water in a wash-hand basin, to prove convincingly that from the constancy of the trade wind the great current was forced into the Gulf, and circulated round it.

We may, too, be reminded that water in a tumbler may be made to assume a convex shape without overflowing. I have tried it often; but we must recollect the fluid is stationary. In a river, and I dare say, in the narrow part of sea channels, the middle of the stream in a tides'-way is slightly convex. In rivers, this occurs only with the ebb. In such a huge basin, however, as the Sea of Mexico, remarkable for the violence of its winds, and the volubility of its waves, it is highly probable such a phenomenon never happens.

An accumulation of water in the Sea of Mexico we may reasonably believe could not occur without a visible effect, which would not be lost on the minds of the witnesses; and would be particularly felt on the borders of the Florida Strait, which according to the theory is on a lower level. It should follow, as clearly as any effect follows a known cause, if this inclined plane existed, that there would be a constant flow of the

accumulated water towards the entrance at the Dry Tortugas; (look at the chart,) for as the fluid is said to be urged in in some part of the opening, it *must* either inundate the land, or run out in another part; and this as constantly. There is not, however, any such effect perceived.

What is it that writers mean when they state that the greatest velocity of the great stream is coincident with the greatest disarrangement of the Caribbean Sea and Gulf? Accumulation of water I conclude is meant. It so happens that, at the season when the current is reported as being *briskest*, the north-east trade wind is *less* active, and calm prevalent; the disarrangement therefore, if it exists, must be due to something else—to the rains? I have expressed already my conclusions on that point.

At this season, evaporation is active over the entire area of the Gulf, and we find that tracts of arenaceous matter line many parts of the sea-face of the land. These masses of sand are as absorbent as a sponge. Under-currents, are no less active, and hence we may affirm that, vigilance of nature is constantly exerted to *prevent* disarrangement, and preserve the level of the sea.

If an accumulation of water took place, it would show itself otherwise than in the increased velocity of the great current; the low tracts would be inundated. This, perhaps, may be fairly insisted upon, as the consequence of temporary accumulation may be seen when stormy and continued easterly winds blow in the Florida Channel, especially in the action of those winds during the transit of a hurricane across the direction of its current; the water is pressed to leeward, and the cays are covered.

The higher level, and the periodical disarrangement of the Caribbean Sea, and Gulf of Mexico are assumptions drawn to account for the existence, and the increased velocity of the stream which runs with such magical effect through the Florida Channel. To me it appears that aqueous local influences have little to do in either. Such a current requires a stronger moving power to originate, to perpetuate, or to vary its velocity, than any superfluity of water which the winds, the rains, and the rivers combined could possibly give to it; bearing in mind the counteracting effects of evaporation, and under-currents. Whatever surplus water the *drifts* may press towards the "sack," is carried off by the great stream. Is it not equal to that? It has sometimes been called the "Mysterious Ocean River." To those who advocate the trade-wind source, or to others who uphold the mechanical effect of the earth's rotary motion theory, it appears anything but mysterious; yet, neither are prepared to tell us where it begins, or where it ends.

There is not a seaman practically acquainted with the two Seas alluded to, I feel assured, that would for a moment believe the drift occasioned by the trade-wind equal to the production of such a wonderful current, and the extraordinary velocity it attains, allowing for the effect of its compressed body in the Strait.

As to the effect of the rotary force and its supposed friction, we may safely apply the words in the description of the orbitual motion:—"This

tremendous power is silent and ineffective. The earth rolls on; but, its motion never hurts the most delicate flower, or the most tiny insect, or interferes with the operations which are going on in the remoter and rarer portions of the atmosphere, where, probably, the millioneth part of a grain in weight would affect the whole operations."

Whatever wiser heads may do, my intelligence can discover no reason why precisely the same may not be said of the diurnal motion.

The theories of the Florida, or Gulf Stream have been for a long time stationary, in a sort of atrophy as it were, perhaps from neglect. Many pretty things have been written about it, even by men of talent; but in fact, what we do really know about it would seem to amount to no more than that it is a great current, variable in its rate, and has always been, since the settlements of the west, a "famous lift" to the homeward bound; of high temperature; and that, the Genii which preside over its steam-like atmosphere often show their choleric character. All the rest with reference to intrinsic value, may very compactly be stowed away in the socket of a musquito's eye!

As to the origin of this mighty current; why *Gulf* Stream? *Gull*, would be more appropriate, as it abounds in the *Larus* tribe. If the government would direct one or two ships of each station to trace it back, it is probable its commencement would be found at a very *remote* distance from its outlet near the Bahamas.

---

## Currents of the Ocean.

*Ship Brocklebank, at Sea, 10th Nov.*, 1849.

Sir.—I send you the accompanying account of Currents, copied from my Journals; you are aware that seamen have no better means of ascertaining the direction and velocity of Currents, than by comparing a *carefully kept* dead-reckoning with observations. It was by such means the accompanying results were obtained, omitting all differences under ten miles.

I am, &c.,

Henry Ponsonby.

*To the Editor N.M.*

*Barque Esk from Singapore.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1835. | ° ′ | ° ′ | | |
| Dec. 5th | 28 32 | 44 36 | West 13 miles | S.S.W. to S.E. |
| " 6th | 29 25 | 41 52 | W.b.N. 14 " | S.S.E. to E. |
| " 7th | 30 24 | 39 17 | S. 33° W. 17 " | E. to N.N.E. |
| " 8th | 31 44 | 36 35 | " 37 " 15 " | N.N.E. & S.W. (Fresh) |
| " 9th | 32 20 | 34 23 | " 68 " 11 " | S.S.W. to E.S.E. |
| " 10th | 32 45 | 32 16 | None. | E.b.S. |
| " 11th | 33 37 | 29 52 | South 19 " | E. (Strong) |
| " 12th | 35 2 | 26 30 | None. | N.E. & W.N.W. (Strong) |
| " 13th | 36 2 | 24 49 | S. 72 W. 62 " | W. (Calm) & W.N.W. |
| " 14th | 35 33 | 23 19 | N. 65 21 " | W. to W.S.W. |
| " 15th | 35 7 | 22 17 | None. | |
| " 16th | 34 49 | 21 7 | | |

*Barque Crown from Calcutta.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1836. | ° ′ | ° ′ | | |
| Oct. 16th | 27 19 S. | 49 15 E | N. 33° E. 44 miles | S. to S.b.W. |
| " 17th | 26 46 | 47 21 | West 21 " | S.E. to E.b.N. |
| " 18th | 27 45 | 44 29 | West 86 " | E.N.E., N.W., W. & S.W. |
| " 19th | 28 26 | 41 39 | West 14 " | S.W. to S.b.W. |
| " 20th | 28 31 | 39 23 | W.N.W. 10 " | S.E, to E.N.E. |
| " 21st | 28 45 | 37 16 | N. 61° W. 18 " | E N.E. to N.N.E. |
| " 22nd | 29 40 | 35 25 | South 20 " | Variable and Light. |
| " 23rd | 31 54 | 33 19 | S. 73 W. 21 " | W. to S.W. (Strong) |
| " 24th | 32 26 | 31 40 | " 65 " 32 " | S. to S.S.E. |
| " 25th | 32 34 | 30 18 | " 70 " 21 " | E. to N.E. |
| " 26th | 33 58 | 28 3 | " 10 " 52 " | E. to N.E. |
| " 27th | 35 27 | 24 41 | " 20 " 43 " | N.E. |
| " 28th | 35 57 | 21 6 | | |

*Barque Crown from Calcutta.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1837. | ° ′ | ° ′ | | |
| Sept. 6th | 33 32 S. | 29 41 E | S. 31° W. 35 miles | W. (Variable) & N.E. |
| " 7th | 34 21 | 27 16 | " West 14 " | W. to W.N,W. str. gales |
| " 8th | 34 12 | 26 49 | S. 87° W. 41 " | Do. Do. fresh breeze |
| " 9th | 34 19 | 24 55 | " 60 " 42 " | Do. Do. str. gales |
| " 10th | 34 47 | 24 16 | " 35 " 40 " | S.b.W. to E. |
| " 11th | 35 57 | 21 19 | | |

*Brig Bonanza from China.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1838. | ° ′ | ° ′ | | |
| Sept. 16th | 34 26 S. | 29 37 E | | E. to E.N.E. |
| " 17th | No observation. | | N. 73° W. 28 miles | N.W. to W.S.W. |
| " 18th | 33 59 | 27 17 | | W. to N.W. |
| " 19th | 34 49 | 26 7 | S. 63 W. 45 " | W.S.W. to W.N.W. |
| " 20th | 34 58 | 25 0 | " 63 " 46 " | S.W. to E.N.E. |
| " 21st | 35 35 | 22 21 | " 51 " 60 " | N.N.W. to W. |
| " 22nd | 35 57 | 20 40 | " 53 " 23 " | |

*Barque Aden from China.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1840. | ° ′ | ° ′ | | |
| June 20th | 31 6 S. | 36 19 E | S. 40° W. 20 miles | N.b.E. & S.W. |
| " 21st | 32 6 | 33 17 | | S.S.W. to S. |
| " 22nd | No observation. | | West 44 " | S.E., N.E., & W. |
| " 23rd | 33 7 | 30 15 | | W.S.W. |
| " 24th | 33 16 | 29 22 | S. 80 W. 38 " | W.S.W. to W.N.W. |
| " 25th | 34 11 | 29 18 | " 48 „ 17 " | N.E. to N.N.W. |
| " 26th | 34 56 | 27 21 | South 25 " | N.N.W. to W.b.N. |
| " 27th | 35 39 | 24 48 | S. 70 W. 85 " | Calms & Variable Airs. |
| " 28th | 35 4 | 23 8 | N. 76 " 58 " | Light and Variable. |
| " 29th | 34 55 | 22 43 | South 11 " | |

*Barque Aden from China.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1841. | ° ′ | ° ′ | | |
| July 29th | 28 19 S. | 46 23 | N. 60° W. 30 miles | S W. |
| " 30th | 28 11 | 43 57 | 60 W. 16 " | S.W. to S S.E. |
| " 31st | 28 20 | 41 50 | S. 57 W. 13 " | S. to E. |
| Aug. 1st | 29 15 | 39 43 | " 35 W. 20 " | East and Variable. |
| " 2nd | 29 45 | 38 50 | " 84 W. 31 " | Variable from Eastward. |
| " 3rd | 30 21 | 36 59 | " 66 W 20 " | Northerly. |
| " 4th | 32 7 | 33 37 | " 60 W. 19 " | Do. |
| " 5th | 33 21 | 30 33 | " 67 W. 18 " | N.W. Variable & S.W. |
| " 6th | 33 27 | 28 41 | " 44 W. 53 " | Calm & W.N.W. |
| " 7th | 34 5 | 27 12 | " 54 W· 81 " | East to N.N.W. |
| " 8th | 35 35 | 23 25 | " 76 W. 56 " | Heavy gale at N.W. |
| " 9th | 35 34 | 22 35 | West 30 " | N.W. to W.N.W.(strong) |
| " 10th | 34 40 | 22 5 | | |

*Barque Aden from Singapore.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1842. | ° ′ | ° ′ | | |
| Sept. 18th | 32 15 S. | 31 39 E | S. 47° W. 36 miles | N. to W.S.W. |
| " 19th | 33 5 | 29 31 | } | Calms & var. light airs. |
| " 20th | No observation. | | " 59 " 93 " | Light & var. from West |
| " 21st | 34 14 | 26 59 | " 59 " 71 " | Do. do. |
| " 22nd | 35 11 | 25 27 | " 63 " 74 " | Do. do. |
| " 23rd | 36 10 | 23 19 | N. 62 " 34 " | Variable from N.W. |
| " 24th | 35 16 | 22 6 | | |

*Barque Patna from China.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1843. | ° ′ | ° ′ | | |
| Dec. 2nd | 33 17 S. | 31 30 | S. 49° W. 10 miles | S.b.W. to W. |
| " 3rd | 33 43 | 29 17 | " 16 " 39 " | Do. do. |
| " 4th | 34 56 | 26 24 | " 57 " 13 " | W., S.b.W., & Calm. |
| " 5th | 34 48 | 25 45 | N. 30 E. 24 " | S.E., N. & W.S.W. |
| " 6th | 35 1 | 25 0 | S. 76 W. 49 " | S.,W. & variable from E. |
| " 7th | 35 6 | 22 49 | " 52 " 30 " | E.S.E. to W.S.W. |
| " 8th | 35 29 | 21 6 | N. 35 " 10 " | W.S.W. to N.W. |
| " 9th | 35 9 | 19 51 | | |

*Barque Patna from China.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1845. | ° ′ | ° ′ | | |
| Dec. 2nd | 31 1 S | 32 37 E | S. 77° W. 13 miles | S., S.E., to E.N.E |
| " 3rd | 31 47 | 31 4 | " 72 " 16 " | W., S.W., & S. to E. |
| " 4th | 32 48 | 29 39 | " 62 " 25 " | E., N. & W.N.W. |
| " 5th | 34 44 | 27 38 | " 60 " 42 " | W.N.W. to W. |
| " 6th | 34 48 | 26 4 | " 71 " 87 " | Light and Calms. |
| " 7th | 34 57 | 23 54 | " None. | W. to N.W. |
| " 8th | 35 11 | 23 28 | " 27 W. 36 " | North westerly. |
| " 9th | 36 15 | 23 7 | | |

*Barque Patna from China,*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1846. | ° ′ | ° ′ | | |
| Dec. 19th | 33 30 S | 30 5 E | S. 48° W. 26 miles | S.b.W. to E.S.E. |
| " 20th | 34 39 | 26 49 | " 45 " 54 " | E.S.E. to E. |
| " 21st | 35 43 | 22 28 | | |

*Ship Thomas Brocklebank from Calcutta.*

| Date. | Lat. S. | Lon. E. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1847. | ° ′ | ° ′ | | |
| Nov. 26th | 33 19 S | 32 8 E | S. 69° W 17 miles | S.W., S.E. and E |
| " 27th | 33 59 | 29 36 | " 13 " 43 " | E. to E.N.E. |
| " 28th | 35 16 | 25 54 | " 62 " 13 " | ENE.EbS, Calm&WNW. |
| " 29th | 35 39 | 23 19 | " 53 " 54 " | N.W.b.W. to W. |
| " 30th | 35 40 | 21 9 | | |

*Ship Thomas Brocklebank from Calcutta.*

| Date. | Lat. | Lon | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1848. | ° ′ | ° ′ | | |
| Sept. 30th | 33 35 S. | 31 3 E. | S. 12° W. 32 miles | N.E., E.N.E., E.S.E. |
| Oct. 1st | 34 41 | 27 43 | " 72 " 54 " | W.S.W. to S.S.W. |
| " 2nd | 35 8 | 24 41 | " 69 " 88 " | S. to E.S.E. |
| " 3rd | 35 45 | 21 50 | South 12 " | E.S.E., E., E.N.E., N.E. |
| " 4th | 35 43 | 19 58 | | |

*Ship Thomas Brocklebank from Calcutta.*

| Date. | Lat. | Lon. | Direction and Velocity. | Winds. |
|---|---|---|---|---|
| 1849. | ° ′ | ° ′ | | |
| Sept. 20th | 32 59 S. | 29 20 E. | West 45 miles | Variable from westward. |
| " 21st | 33 31 | 28 36 | S. 55° W. 49 " | W.S.W., S. and E. |
| " 22nd | 34 39 | 26 0 | " 68 " 105 " | E. to N.E. |
| " 23rd | 35 27 | 22 36 | | |

In order to add to the utility of these observations of our correspondent, we have appended to them the following article from our volume for 1840, describing a SUMMER'S WEEK OFF THE CAPE.

AFTER several days of fine weather, with a fair wind, we approached the dreaded coast of Africa, from the Mauritius, with sanguine hopes of a speedy deliverance from its dangers, more particularly as we were about to pass it at the most favourable season, and in the height of summer. Our good ship being heavily laden, (445 tons burthen, and 700 tons of cargo in her,*) we anxiously enough perused Horsburgh's Directions,

* A common instance of the effect of the absurd old tonnage laws, which have been happily superseded, but are not yet defunct, to the discredit of this country, and the injury of her revenue.

and comforted ourselves with the belief that the dreaded north-westers were almost as uncommon and harmless in December, as they were frequent and fearful in June.

Since our departure from the Mauritius, up to Christmas-day, the barometer with the exception of a few changes, had attained its maximum: during the 26th however, the mercury fell from 29·80 to 29·56, the breeze during the 25th, 26th, and 27th was very variable, at one moment light, and at another so violent as to split our main topsail; but still with a beautiful, and apparently serene sky: in the latter part (nautical time*) of the 27th, the sky became gradually overcast, and our good breeze seemed at last to be fairly exhausted.

For a few hours all was still, as in a wilderness, the barometer gradually lowering, when just before sunset, the most perfect optical illusion that was ever witnessed, roused us from our listless condition. At almost the same moment every one on the quarter-deck descried bold land right ahead; each, in his own mind, fortified himself against deceptions of this kind, and remembered the oft told legends of "phantom lands," and the "Flying Dutchman," off the Cape of Storms. But this was to no purpose, scepticism gave place to the nervous conviction that we were rapidly running towards *terra firma!* every point, every peak, every hummock of the land kept its position, a fleecy cloud would even now and then be distinguished, sluggishly sweeping past the higher ground, and even tints of vegetation and alternation of barren rock could be separately pointed out. The experienced eye of the old seaman was even rivetted to the same spot, and at length after a pause of intense interest, the orders of our excellent commander were given to veer ship, who, with such startling proof before him, even against his own reckoning and observations, could not for a moment disbelieve his own eyes.

While in the act of veering, the horizon appeared to close its dusky limits around us, and a flash of vivid lightning gleamed for an instant, warning us of the trying hour at hand. Its immediate effect was to dissolve the spell which had deceived us. For an instant, and an instant only, the sun likened to a huge orb of murky fire, shewed itself half above the horizon, directly beneath the fairy land; which, as if only awaiting this exposure of its phantom form, almost immediately melted, first into the appearance of angry volcanoes, and sweeping water spouts, then gradually subsided into one dark and murky mass all around us. How forcibly this reminded us of the lines

"One wide water all around us,
All above us one black sky."

Our ship had hardly resumed her course, when a sudden calm succeeded, accompanied by darkness, and a death-like silence prevailed; all was prepared for the coming blast and every sail furled. A few seconds afterwards a furious wind was forging her astern against the huge swell

* "Nautical time" in the Royal Navy, is the same as civil time, that is the day begins at midnight, and it is high time the same practice was generally adopted n the Merchant Service.

which was threatening every instant to overwhelm us. The squall passed, the wind lulled, and left us helpless at the mercy of the sea.

Daylight brought with it a clear and apparently serene sky, but only as if to mock us; for, towards evening the same dark and threatening phantom which we had seen the day before re-appeared, but now as if in derision directly astern of us. Again the lightning surrounded us, and after a deafening peal of thunder, came a storm of hail-stones so immense as are seldom seen.

These forebodings, together with the continued fall of the barometer, so truly told our fate, that we failed not to profit by them, and the next day we were snugly running under reefed topsails, on the Agulhas bank in 60 fathom soundings, but with the sea as smooth, almost, as the surface of a river. We quickly lost this advantage, for after veering ship at dark, before midnight we were again on the raging and fathomless waters, under nothing but two close-reefed topsails; the gale increasing and our ship labouring in a tremendous sea.

It will be needless to describe the misery of the next forty-eight hours, and how the uncertain and violent waves almost overwhelmed us on all sides; waves, which the brave heart and quick hand of even an English tar are no match for. Our ship quivered and trembled under their furious shocks, but under Providence weathered all, and but for the curious phenomenon which had preceded the gale our misfortunes would never been further noticed.

So much confidence may be placed in the barometer, that unerring friend of the seaman in these latitudes, that its minutest indications are sufficient to place the intelligent mariner on his guard, to prepare for the worst. But there is yet another phenomenon which is worthy of attention on this coast, and which does not appear to have been sufficiently noticed. It is the remarkable difference between the surface of the sea, during and after a gale of wind off the Agulhas bank, and that upon it. Three times during the gale did we enter from deep water to soundings on the bank, and both in leaving it, and going on to it did we experience this most remarkable change. While in deep water we were exposed to the most turbulent and irregular seas imaginable; some apparently rising close to, and breaking almost over our ship, and at such moments many an anxious look was cast towards the boats and spars. But no sooner did we find soundings with 60 to 75 fathoms, than we were in a sea so comparatively tranquil, as to be enjoyed and appreciated by all hands.

In rounding the Cape therefore, under such circumstances, it would in my opinion be highly advantageous for homeward-bound vessels, both in winter and summer, on an approaching gale from N.W., W., or S.W. to stand in for the bank, making short boards, if possible, till the gale is over, keeping in from 75 to 55 fathoms water. The gale may probably commence at S. or S.S.W., and will most surely blow itself out, following the course of the sun.

On the approach of a south-easter on the contrary, it would be more advisable to keep just off the bank, where smoother water may probably

be found than on it, and where the north-westerly current runs strongest. A very little experience will teach the navigator to prepare for a westerly gale, or to take advantage of a south-easter. In the first case an unnaturally clear sky, and a brilliantly defined horizon, cannot deceive him when the barometer is falling, and eventually the thunder and lightning will prepare him for his struggle. On the other hand the same clear sky, with light scud flying, will indicate south-easterly gales, when the barometer is steadily rising. The lighter it commences, the more wind may be expected; and from that, and the long swell, the nature of the gale may be anticipated.

J. A. LLOYD.

---

TURKISH FOR TARS.—No. I.—*By Mahmouz Effendi.*

BRITISH exports to Turkey amount in value to more than four millions sterling per annum, and must gradually increase so long as Turkey "holds her own," but any encroachment of Russia on her territory will necessarily injure this English trade, and ultimately end in Muscovite manufactures superseding the British in the Black Sea, and also in Persia, whither countless Manchester bales are now month by month forwarded *viâ* Trebisonde, Erz-Reum, the Pass of Daha and Bayazeed in the vicinity of Mount Ararat. This is obviously a better route for goods for Persia than *viâ* Egypt, or the convict-repelling Cape of Good Hope. Now, one great portion of these British exports is landed at Smyrna, and another at Constantinople, where so far as the purport of this present article is concerned, we will leave them. Our views touch rather the carriers of the goods than the goods themselves, the sailors rather than the stuffs. And not even the sailors till they have arrived at or near their destination, that is at Constantinople or Smyrna.

The mere business of a merchant vessel may no doubt be conducted by an English merchant resident in either of these cities, and the captain of the particular craft. Be it so. But innumerable instances occur where the captain, his mate, or crew are thrown unassisted among the natives either in the city itself when reached, or on the coast before reaching it. What is the result ? A most certain dilemma. The Turks don't know English, the English don't know Turkish: they wish to communicate, but they can't. No English and Turkish dictionary has yet been published; and sailors are, therefore, in regard to the language of the "Sons of the Prophet," completely on their beam ends. Remembering this state of things it occurs to me that some little good may be effected by showing in the *Nautical Magazine*, with how few words and phrases a gentleman with whom we are acquainted, made himself "perfectly at home" in Turkey. "I don't want to understand *them*," said he, "I only want *them* to understand *me*."

This is the rough sort of "Turkish for Tars" we are to-day about to commit to paper. It is infinitely more easy we confess to make a Turk

understand, than to understand a Turk. Experience in the Levant ever proves this.

The first phrase to be learnt is *Neh istersen*? "What do you want"? which is frequently shortened to *Neh ister?*

To this the replies may be

| | | | |
|---|---|---|---|
| Terdjuman istérim... | I want an interpreter. | Sherrab istérim ... | I want some wine. |
| Et istérim..... | I want some meat. | Raki istérim ..... | " spirit. |
| Eckmeck istérim... | " bread. | Su istérim ..... | " water. |
| Kaik istérim..... | " a boat. | Arpa-sui istérim... | " beer. |
| | | Fener istérim..... | " a lantern. |

Or, as required, the following words may be prefixed to the word *istérim.*

| | | | |
|---|---|---|---|
| Apple..... | Elmah. | Olive ..... | Zeitoun. |
| Beef... ..... | Sighir-ety, | Beans..... | Bakla, |
| Pork ..... | Domouz-ety. | Pear ..... | Armoud. |
| Mutton ..... | Koyoun-ety. | Pomegranate... | Enar. |
| Fish ..... | Balick. | Onion..... | Soghan. |
| Milk ..... | Soud. | Water-melon ... | Karpouz. |
| Hare ..... | Tavshan. | Date ..... | Hourmah. |
| Lobster ..... | Istakos. | Vinegar..... | Sirkeh. |
| Crab ..... | Tchaganos. | Grapes ..... | Ouzoum. |
| Fowl ..... | Taouk. | Cabbages ..... | Lahana. |
| Melon..... | Kavoun. | Potato ..... | Yer-elmasy. |
| Soup ..... | Tchorba. | Salt..... | Touz. |

To ask for any of the articles just given above, *fish* for instance, the phrase is simply

Balick var-mi?.....Is there any fish?

| | | | |
|---|---|---|---|
| Var! ..... | There is. | Yokhdur ..... | There is none. |
| Or simply—Evvett, | Yes. | Yohk ..... | No. |

When paying in dollars, the usual, and most convenient coin, for purchases made, the buyer may have to say "*Para boz,*" "Change this money." When asking the price the words "*Katch groush?*" "How many piastres?" will be found sufficient. Thus the knowledge of a few numbers immediately becomes necessary. "*Besh groush*" signifies five piastres, or, an English shilling.

| | | | |
|---|---|---|---|
| One..... | Bir. | Seven ..... | Yedi. |
| Two .... ..... | Iki. | Eight ..... | Sekiz. |
| Three..... | Eutch. | Nine ..... | Dokouz. |
| Four ..... | Dort. | Ten..... | On. |
| Five ..... | Besh. | Eleven ..... | On-bir. |
| Six..... | Alti. | Twenty..... | Yirmi. |

The comical friend to whom we have already alluded contends roundly to this very day, that he was "perfectly at home" in Turkey with the above vocabulary, simply aided by certainly not a dozen other phrases or sentences, such as

| | | | |
|---|---|---|---|
| Oudjouz ..... | Cheap | Shookoor ..... | Thanks. |
| Behalu ..... | Dear. | Ingliz ben-im ..... | I'm an Englishman |
| Pek-ae ..... ..... | Very good. | Konsolos istérim ... | I want the Consul. |
| Pek fenna ..... | Very bad. | Yavash, yavash .... | Softly, take it easy. |
| Bilmem ..... | I don't know. | Tchahbook..... | Make haste. |

He also made it a rule to call every Turk a *Hajji*, and whenever he

passed a mosque to point at it, and declare it was *pek guzel*, "very beautiful." Truly, a philosophical traveller, he! Now, if any of our "young tars" will but master even the above specimens of the Turkish tongue we warrant they will find them highly useful on the whole coast of Asia Minor. "The first blow is half the battle"; once *begin*, and sufficient Turkish for common purposes is soon, very soon, to be acquired.

To the master and mate of a merchant ship visiting the Turkish shores of the Levant, the following table of words may prove beneficial, containing as it does some of the chief imports and exports of the country, here alphabetically arranged for the covenience of reference.

| | | | |
|---|---|---|---|
| Anise | Raziane. | Madder | Boia-oty. |
| " | Anisoun. | Mastic | Sakiz. |
| Butter | Saï-yaghy. | Olive-oil | Zeitun-yaghy. |
| Carpet | Hali. | Opium | Afium. |
| " | Kilim. | Oranges | Portugahl. |
| Cloth | Bez. | Paper | Kiaghyd. |
| Coffee | Kaveh. | Raisins | Kourou-ouzoum. |
| Copper | Bakyr. | Rhubarb | Ravend. |
| Cotton | Pambouk. | Rum | Roum. |
| Currants | Keshmish. | Silk | Ipek. |
| Drugs | Ebazir. | Skins | Deri. |
| " | Behar. | " | Poust. |
| Figs | Indjir. | Sponge | Sunguer. |
| Fruit | Yemish. | Sugar | Shecker. |
| Furs | Kurk. | Tallow | Dhon-yaghy. |
| Grain | Boghdai. | Tea | Tchai. |
| Gum | Zamk. | Tin | Tenekeh. |
| Gum-dragon | Tetrè. | Tobacco | Tootoon. |
| Hides | Gueun. | " | Tambakku. |
| Honey | Bal. | Wax | Bal-moumi. |
| Indigo | Tchivid. | Wine | Sherrab. |
| Iron | Demir. | Wool | Yeun. |
| Leeches | Sulouk. | " | Yapak. |
| Laudanum | Afiun-rouhi. | | |

Vessels are frequently sent from England to Turkish ports, such as *Tchesmè** in the Straits of Scio, where not *one single word* of English is understood. A Jew, perhaps, may there be found who can speak Spanish, (the usual language among the Hebrews of the Levant,) or a Maltese somewhat versed in Italian, but beyond this nothing is to be expected. Now, from Tchesmeh, Sighajik, and parts adjacent, it is often necessary for a "skipper" to ride across the country to see some consignee at Smyrna, and in procuring a guide and horses not a little difficulty is (on account of the language) frequently experienced. In such a straight, the following words might be found useful.

| | | | | | | |
|---|---|---|---|---|---|---|
| Bana | bir | at | lazim-dur. | } | *i. e.* I want a horse. |
| To me | a | horse | is necessary. | } | | |

* The little but rising port of Tchesmè (properly Tcheshmè) derives its name from a fountain, Tchesmè being used both by Persians and Turks to signify a fountain, and Tchesmè-sar for a place abounding in fountains. Tchesmè also signifies the eye of a needle. For the great action between the Russian and Turkish fleets off Tchesmè, see the *Nautical Magazine*, vol. 1, p. 237 and Slade's Records vol. 1, p. 63.

| | | | |
|---|---|---|---|
| What name? ..... | Neh adee-dur. | Road ..... | Yol. |
| Mule ..... | Katir. | Village ..... | Kui. |
| Guide and groom... | Suridji. | Coffee-house..... | Kav-hanè. |
| Posting-station ... | Menzil-hanè. | Thirsty ..... | Su-syz. |
| Post-horse..... | Menzil-barguir. | Donkey ..... | Esheck. |
| To-day ..... | Bu goon. | Man ..... | Adam. |
| To-morrow ..... | Yarim. | Come ..... | Gel.* |
| Camel..... | Dèvè. | Go, be off ..... | Git.* |
| Push along ..... | Haidè. | River ..... | Tchai. |
| Stop! ..... | Dour! | House..... | Ev. |

We are perfectly aware in offering these remarks that many will regard them as needless or trifling. But we have ourselves gone through the ordeal of travelling in more Oriental countries than one, when perfectly ignorant of their languages. And we are strongly of opinion that even a skeleton vocabulary, such as we have above offered, is not without its uses. Added to the above we shall here also offer the hint to any tar making such a trip as that from *Tchesmè* to *Izmeer* (Smyrna) that he take a good bagful of tobacco (*tootoon*) with him, in order to get into the good graces of all Turks where he halts.

I have observed that one of the very first places visited by our Tars on getting on shore is a *kav-hanè* or coffee-house. The expense of a pipe and a cup of coffee reaches only a few pence, and I may here remark that it is not the native custom to eat much in these places, but simply to smoke and enjoy the "black broth".

The Turks generally carry their own tobacco-bags, (*tootoon-kisèsy*,) and hire only the pipe when entering a coffee-house. The Frank does the contrary. When any one has filled his own pipe he utters the phrase "*beer attesh*," which signifies "a light"; or "*beer attesh getteer*", "bring a light or fire;" upon which a boy in attendance takes from the "*manghal*," or "chafing-dish," standing in the centre of the room, a piece of red-hot charcoal, in the "*mashè*;" or "tongs" and places it in the red "*looleh*," or "pipe bowl"; the smoker whiffing away till his pipe sufficiently "draws."

In ordering coffee, the utterance of the word "*sadeh*," signifies that you desire "no milk or sugar" with it; but if these two articles be required, the customer must sing out after saying "*kavè getteer*," "bring some coffee" "*shecker ileh*" "with sugar"; "*soud ileh*" "with milk". The *kavedji* requires no longer orders than these.

(*To be Continued.*)

---

NOTES AMONG THE ISLANDS OF THE PACIFIC.—*Extracts from the Remarks of H.M.S. North Star: Capt. Sir E. Home, R.N.*

(Continued from our last volume, p. 637.)

ON the 16th the king visited the ship. He came in a very good canoe with rather a large retinue attending him in another, amongst whom was his son and the interpreter. He brought two turtle as a present to

* Pronounce the "G" as in "Guard," not as "J" in "Javelin."

the crew; he was very silent, breakfasted with me, first asking permission to say grace, which he did before the meal and afterwards, with the same devotion that I had observed in king Josiah when at Tonga. He asked a few questions about the Chinese. His retinue wanted breakfast also. Rice and sugar is a favourite food, or what I believe, they as well as the New Zealanders like better is burgoo, made with oatmeal and water with sugar. They remained in the fore cabin, the king being alone with me in the after cabin; amongst them were some of the principal persons of the island.

After breakfast, his son, a lad about sixteen years of age, came to speak to him. The lad's manner towards his father was affection mixed with respect in the highest degree. But he was immediately dismissed, nor would the king allow him to remain in the cabin with us. After this the king wished to see the ship, but she was in no condition to be visited, for we were clearing the after-hold and spirit-room, the decks were filled with casks, and they were pumping off rum from large casks to others of a smaller size. But his majesty, I believe, was more pleased with all this than if she had been in perfect order; his attendants all desired to taste the English kava, so accordingly it was brought into the cabin to them: some were satisfied with the taste, others with the smell, but one or two drank it off, and seemed to wish for more, to the king's great amusement. A party being sent to haul the seine formed a subject wonder to King George. "If fish were wanted," he said, "he would send and have some caught for us:" but why the gentlemen should go to catch them themselves he could not understand. The natives of New Zealand also express the same astonishment in their country, at a gentleman working in his garden.

On the following day he visited the officers in the gun-room. The ship was then in somewhat better condition, and he was much pleased at many things, but was exceedingly shocked at some plates in the publication called *Punch!* in which His Grace the Duke of Wellington is represented. His Majesty with evident indignation enquired "How could the Queen of England allow the saviour of your country, so great a man as he is to be turned into ridicule: also herself and husband too! I would not allow of any such impropriety;" said his majesty, and his looks confirmed the sentiment.

Before leaving Vavaou I called at his own house to see him, in company with Mr. Turner. We found him quite off his guard. His house stands in the centre of a large grass plot, enclosed by a reed fence, extremely well made, close and strong. He was in a simple native state, with nothing on but his wrapper of native cloth, worn like a petticoat round his waist. He was lying upon the mat covering the ground, nursing and playing with his little infant son; but on perceiving us he immediately jumped up in some confusion, and ran with the child to the entrance of the inner chamber of his house, and delivered it into a pair of hands which were extended from behind the screen to receive it, for his wife did not appear. At first I did not know him, nor should I if Mr. Turner had not told me who he was. As soon as the child was

gone he was perfectly at his ease, so that his confusion did not appear to be caused by his own undress, but from having been found nursing an infant. I begged him to let me see it. The child was immediately brought back: he said it was to be christened on the first Sunday in the next month; that he had not settled yet what name he should give him, and asked me for one. My reply was that his own was a very good name, and that he should call him George, to which he did not object.

The things which were brought off at this place and the prices paid for them were clubs of various sorts, shells of various sorts, for which a bottle was given for twenty-four, spears were sold for a shirt or a fathom of calico, fowls a bottle each, eggs eighteen for a bottle, a shirt or jacket purchased a good pig, four cocoa-nuts for a head of tobacco, shaddocks eight or ten for a bottle, twelve limes or lemons for a head of tobacco. The Papau apples here are nearly as good as a melon, I think them better than the common sort of melon. This fruit is most abundant and is much used, and as a substitute for apple in a pie infinitely superior to pumpkin. I never before saw it so much used as it is in these islands. In the West Indies I have frequently seen it allowed to drop from the trees, and have sometimes heard it declared to be poison. No one here, however, is acquainted with the properties of the leaves in rendering newly killed meat tender when hung up under their shade. Pine-apples were three or four for a bottle, plantains and bananas a bottle for twenty or thirty, chillies a basket full for two heads of tobacco; melons and pumpkins six or seven for an old flannel, or a shirt; a basket full of maize for a bottle, a piece of native cloth for a shirt, or three yards of calico. The number of canoes usually attending the ship was about twenty, each having about four men in it. The house fly was here extremely troublesome and more numerous than I had ever seen before.

I had been anxious to visit a cave which is in one of the adjacent islands, where I was told there is a subterraneous spring of fresh water, but I could not find a guide disengaged to go with me: water here as at Tonga is very scarce. In the houses of the Missionaries at Tonga it is only obtained by spreading sheets to receive the rain water, the supply for the natives being all drawn from the cocoa-nut trees. The weather here is generally fine, the hurricane months are December and January. The country has hardly yet recovered the effects of a very violent one which laid the island waste in December 1840.

The natives here as at Tonga are strong and well made, without disease or deformity. On entering this harbour we observed several places that were taken for small neat villages. They were well cleared level spots of ground which appeared to be white with numerous small sheds, and houses built upon them. We found they were burying-places. They are enclosed by large slabs of stone set on edge, the area filled with sand which the women bring in baskets from the sea side as at Tonga. The corpse is buried in the sand, but persons of importance are deposited in vaults or large coffins formed of these stones. A shed is frequently erected over the grave which gives the place the appearance of a village; the roof being supported upon four posts, every grave is marked, although

by the simplest means; some are enclosed in a fence of reeds neatly interwoven; others have no more than the frond of a cocoa-nut tree laid over the grave to mark the spot. Under the trees which surround this spot were hung the canoes and paddles of the deceased. The trees are all fruit bearing, as the bread-fruit principally, the banana, and papau or mammy apple. This was the custom before the introduction of Christianity, and is now discontinued. The canoes I saw were some of them very old.

It was my intention to have sailed on the 18th, which was Sunday, but I was particularly requested by Mr. Turner to postpone our departure until Monday. He said, and with great truth, that they were doing all in their power to instil christianity into the minds of the natives, and the commands laid down by our religion was the only ground they stood on. He said, a man-of-war comes in, to which they all look for example, or confirmation at least of the truth of what they had been taught. What will they think of us to see her doing that very thing which we have been teaching them it is wicked to do. The same arguments were used at Tonga-taboo, and no pilot would be found to take a ship out on Sunday, and some officers of right mind have given it on record in a book which is kept on board the senior officers' ship in Australia, that ships are not to sail on Sunday, unless absolutely obliged to do so. The same objection is as strongly made in New Zealand.

On Sunday the 18th, it being calm for the first time since we had been in the harbour, it was observed in taking the draught of water that the fore foot was damaged when on the reef off Tonga-taboo. Being Sunday no native could be found who would go down to examine the extent of mischief, but on the following day a man went down who made a report, upon which I considered it my duty to have the mischief repaired before any further risks were run more than were necessary, and I determined to go to Port Arthur, Van Diemen Land, to heave down. The diver expressed himself much alarmed at the sharks which frequent this harbour, of large size, very voracious, but which never appear. The *North Star* sailed from Vavaou on the 20th. At 9 A.M. we were clear of the heads, the peak of the Island of Lette, N. 68° W., the north-east extreme of Great Island S. 52° W., south extreme S. North Head N. 25° E., Southern Rock Island S. 24° E. At noon the north extreme of the island bore S. 24° W., and the south extreme S.; at 1h P.M. Vavaou was out of sight. We stook away N.N.E., for the Navigators to complete our water, a fresh breeze and the constant south-east swell attending us, which I believe is a proof of the absence of coral reefs. The Island ot Upolu was seen upon the 22nd; at noon lat. 14° 31′ S., long. 171° 33′ W., it was distant about thirty-three miles. At 9h. on the following morning the Island of Tutuilla was seen E.N.E.; the ship's place at noon, lat. 14° 7′ S., long. 171° 28′ W.; the west extreme of land N. 73° W,; east extreme of Upolu N. 11° W.; and at 2h. P.M. passed between the west extreme of the Island of Tutuilla, and the east end of Upolu.

(*To be Continued.*)

## Nautical Notices.

Rangoon.—*Directions for entering the Rangoon River, by C. M. Crisp.*

Ships bound to Rangoon, in either monsoon, should make the land, ten or twelve miles to the southward of the Elephant Point. The coast being very low, will not be seen until 4¼ to 4½ fathoms at low water. Thirteen miles south of the Elephant Point, there are two or three straggling Palmyra trees, which are a certain mark to know the land, as there are no trees of this kind farther to the southward. Immediately after these are seen, two remarkably tall Palmyra trees will be seen. (Since the above was written in June last, the tops of these trees were not on, it is possible they may have been blown off, or may have fallen off from the effects of blight.) The trunks of these trees resemble the masts of a junk. There are several tall Palmyra trees on the Elephant Point, and a small Pagoda, but the latter is not conspicuous on account of some bushy trees about it. The remarkable branch that resembled the trunk of an Elephant has broken or has been blown down. The Eastern Grove or Pilot Bush is the northernmost, high bushy trees on the east side of the river; it is easy to make out, and is the only good mark to proceed into the river between the Spit Sand and the One and Half Fathom Bank.

Having brought the Elephant to bear N.b.W., bring the Pilot Bush to bear N. ½ E., and keep it on this bearing until the Elephant is brought to bear W.N.W.. when haul to the N.W. into the river.

As you bring the Elephant to bear to the westward of N.b.W., you will deepen into 7 fathoms or more on the flood tide, and when the Elephant bears N.W.b.W. ½ W., being then in the narrowest part of the channel, you will shoalen into 5 fathoms and again deepen into 6 or 7 fathoms inside the river. At low water you will not have less than 3½ fathoms in the channel with the above bearing of the Pilot Bush.

With the Pilot Bush N. ¾ E., Elephant N.W.b.W. ½ W., you are on the edge of the spit; with the Pilot Bush N. ¼ E., Elephant N.W.b.W. ½ W., you are on the edge of the One and Half Fathom Bank; with Pilot Bush N. to N. ¼ W., you are on this bank with the same bearings of the Elephant.

Having entered the river, keep on the west side to avoid an extensive mud flat that runs out half the river's width from the east side. Being abreast of Basseen Creek on the west side, you must edge over to the eastern side to avoid the De Silva Sand, situated about one-third from the western side, and directly abreast of a stockade on the same side of the river, while you avoid this danger, (which has 1½ fathoms at low water,) you must be careful not to get set into Chokey Bight where the tide sets very strong and the water very deep 16 to 17 fathoms. Having passed the Chokey, the river becomes more narrow, but it is free of danger. Being abreast of the stockade on the point above the Chokey, and on the same bank of the river keep on the east side of the river to avoid the Larn Sand that runs parallel with the western bank from the commencement of the Dallah high trees to Dallah point. When Rangoon Reach is well open, haul to the westward to pass between the north end of the Larn Sand and the Hasting Sand. This sand is situated at the junction of the Pegue and Rangoon Reach, and extends some distance up the Rangoon Reach. The You e-thet high trees kept a quarter of a ship's length open south of the King's Wharf is a good leading mark for

this channel. Hauling past this danger, you can steer to anchor at discretion abreast the flag-staff.

*Remarks.*—During the spring in the south-west monsoon it at times blows very strong, when great care should be taken not to get eastward (in cloudy weather) of the middle ground between which and the Zingout Mountains or Martaban shore, the sands extend a long way to seaward, over which the bore rushes with the flood, which makes it very dangerous when near them. As a general remark applicable to the whole coast from Amherst to Point Porian when the position of a ship is not known, and you get into hard soundings you should haul to the southward to get into soft soundings. While in soft soundings with good anchor and cable judiciously used, a ship will seldom drive on the flood tide unless it blows a gale of wind which is seldom known on this coast.—*Union Press.*

---

### Ardnamurchan Lighthouse.

The Commissioners of the Northern Lighthouses hereby give notice, that a lighthouse has been built upon the Point of Ardnamurchan in the County of Argyll, the light of which will be exhibited on the night of Saturday the 1st December 1849, and every night thereafter, from sun-set till sun-rise.

The following is a Specification of the lighthouse and the appearance of the light, by Mr. Alan Stevenson, Engineer to the Commissioners:—

The lighthouse is in lat. 56° 43′ 45″ N., and long. 6° 13′ 30″ W. By compass, the lighthouse bears from Calliach Head, N.E. ¾ E., distant seven miles; from the Cairns of Coll, E.S.E., distant eight miles; from Kana Head, S. ¼ E., distant thirty miles; from Scour or Eigg S.W.b.S. ¾ W., distant eleven miles; and from Bo Askadil Rock, W.S.W., distant seven miles.

The Ardnamurchan Light will be known to Mariners as a fixed light of the natural appearance. It will be visible in a north-westerly direction from N. E.b.E. ¾ E., round to S.W.b.S. The lantern is elevated 180 feet above the level of the sea; and the light will be seen at the distance of about six leagues, and at lesser distances according to the state of the atmosphere.

The commissioners hereby further give notice, that by virtue of a warrant from the Queen in council, dated 11th August 1848, the following tolls will be levied in respect of this light, viz:—

For every vessel belonging to the United Kingdom of Great Britain and Ireland (the same not belonging to her Majesty, her heirs and successors, or being navigated wholly in ballast), and for every foreign vessel, which, by any Act of Parliament, Order in Council, Convention, or Treaty, shall be privileged to enter the ports of the said United Kingdom, upon paying the same duties of tonnage as are paid by British vessels, the same not being vessels navigated wholly in ballast,) which shall pass the said lighthouse upon Ardnamurchan, or derive benefit thereby, the toll of one *farthing* per ton of the burden of every such vessel, for each time of passing the said lighthouse, or deriving benefit thereby, on a coasting voyage, and double the said toll for passing or deriving benefit on an oversea voyage; and double the said respective tolls for every foreign vessel not so privileged.

By order of the Board,

(Signed) Alex. Cuningham, *Secretary.*

Office of Lighthouse Board, Edinburgh, Oct. 31st, 1849.

---

DESCRIPTION AND SOUNDINGS OF THE HARBOUR OF TOR.—*By Major C.R. Macdonald May*, 1849.

The harbour of Tor, called by the ancients Φοινικον,* is situated on the eastern shore of the Red Sea, 120 miles due south from Suez; it is completely sheltered from all winds by a coral reef that extends from the point of land forming its northern side, to which it is united, excluding all entrance even for boats in that direction; and this reef so entirely stretches across the front of the bay as to make the entrance South and by West, and at the same time rendering it very narrow, but it is quite clear of rocks, having a depth of 10 fathoms, gradually shoaling to 7 in the centre, and to 25 feet at the extremity of the harbour. Great care is requisite in entering the harbour, especially in tempestuous weather, as the sea breaking on the easternmost reef is apt to wash the entrance, but when the entrance is once found the channel is quite clear, and the anchorage very good, being composed entirely of a kind of clay or marl mixed with shells.

In the immediate vicinity of Tor abundance of water is to be found within 600 yards of the beach, but all these wells have a slight brackish taste. They are, however, the wells that are resorted to by all the vessels that visit the harbour for the purpose of watering, either because they are entirely ignorant of the really good but more distant wells, or else because the water being so much better than that of Suez, that its brackish quality is not at first detected. The Arabs also, in order to save themselves trouble, always direct strangers to the nearest wells. The really good and fresh water is to be found in a direction north-east from Tor, distant about two miles and a half, and situated in a very extensive grove of palm trees, where several of these wells are to be found; and the water of which is as pure and sweet as can any where be found. I not only used it the week I was there, but took a large supply in my casks, which lasted me for many days.

There are also several very fine hot mineral springs situated due north from the harbour, about three miles distant, at the foot of a range of limestone hills, which extend for many miles parallel to the coast. These mineral springs are held in great repute amongst the whole of the tribe of Beduoin Arabs of that peninsula, who assert that they possess many medical qualities, and heal many diseases when used to bathe in.

I examined these springs very minutely and also bathed in them. I found the largest one to be about five feet deep, of a circular form, with a diameter of about fifteen feet. In one place a hot spring gushed up, and a cold one in another part, forming a bath of a most agreeable temperature.

The most singular circumstance connected with it was, the fact, that its sides were entirely surrounded with huge stones of most ancient kind of masonry, which from its appearance must have been of a very remote antiquity, formed in all probability by the ancient Egyptians or Phœnicians 3,500 years ago. There were several other springs similar in quality, but not surrounded by ancient masonry.

The harbour of Tor has been formerly defended at its entrance by a very large and strongly built fortress, which from its appearance, I should judge to have been constructed by the Venetians about 1420; it is situated close to the waters' edge. At its four angles there are curiously constructed circular towers, the lower compartments of which have been used as casements. It must have mounted originally about fifty pieces of cannon, and its walls and foundations are still so masonic as easily to be repaired; and if so, no vessel

* This term signifies Phœnician.

could possibly enter when exposed to the fire of its guns, not more than 150 yards distant. The whole country for many miles around Tor, consists of a very fine argellaceous soil, which retains the water flowing in the winter season from the lofty range of granite mountains, distant about ten miles.

The soil only requires draining in order to produce anything that might be sown, or planted, such as coffee, tobacco, cotton, indigo, &c. The neighbourhood of Tor, abounds in palm trees, of which there are at present about 15,000, the dates of which are considered the finest in Arabia. The neighbouring coasts are abundantly supplied with fish of the finest quality: shell fish also abound. The entire population consists of a few Coptic families, numbering at the most, not more than 100 individuals.

The entire distance from Tor to Suez consists of a beautiful flat plain, hard and gravelly, running parallel to the shore, and about ten miles wide, with the exception of about twelve miles, where it is a good deal broken by roads or nullahs, formed by the course of some torrents flowing from the mountains: it is so exceedingly flat and hard that a railroad could be laid down on it without any engineering difficulties.

(Signed) C. Macdonald.

---

## Edwards' Patent Preserved Potato.

*Arctic Regions—Sir James Ross's Expedition.*

The good opinion we have long since expressed respecting Messrs. Edwards' Patent Preserved Potato for use at sea, has been most satisfactorily confirmed by the officers of the late Arctic Expedition, by whom it appears to have been most highly appreciated, and obtained for the Inventor the title of *one of their best friends!* In justice, therefore, to him we insert the following:—

*Nov. 27th*, 1849.

Edwards' Patent Preserved Potato having been supplied from Her Majesty's Victualling Yard in July 1848, for the general service of the ships "*Enterprize*" and "*Investigator*", an extra quantity being also taken by the Officers of the respective ships. We, the undersigned, unanimously agree, and have much pleasure in reporting, that Edwards' Patent Preserved Potato was in constant use in the Arctic Regions, where the vegetable properties were found to continue unaffected by the climate; and that the quantity remaining on our return to England proved to be perfectly good and wholesome, thus establishing the article to be invaluable as a sea store. *Sickness and Scurvy having occurred in the Expedition*, this prepared vegetable proved of the most essential benefit.

Signed { James C. Ross, Capt. H.M.S. Enterprize.
Edward Bird, Capt. H.M.S. Investigator.
John Robertson, M.D.
James Biggs, Paymaster and Purser.
Robert Anderson, Surgeon.

*Letter from Sir William Burnett, K.C.G., F.R.S., Director General of the Medical Department of the Navy.*

*Admiralty, Dec. 1st*, 1849.

Gentlemen.—I have to acknowledge the receipt of your letter dated the 29th ult., enclosing a testimonial from Captain Sir James Ross, and other

Officers of the late Expedition to the Arctic Regions, as to the beneficial qualities of your Patent Preserved Potato, and in reply acquaint you, that I am very glad to see so satisfactory a testimony in favour of the article in question, as forming part of the diet of ships of war on long voyages or cruizes; and as far as I can I shall be happy to promote its more extensive use in the Royal Naval Service.

(Signed) W. BURNETT, *Director General, &c.*

*To Messrs. D. & H. Edwards' & Co.*, 1, *Bishopsgate Street.*

---

THE SORELLI ROCKS.

*Nov. 20th*, 1849.

SIR.—Seeing that the article under the head of "Sorelli Rocks" is ended in the November number, without any remark upon those rocks themselves, or the course the unfortunate ship was steering, (which latter was so roughly commented upon by many of the papers immediately after the sad accident,) has induced me to offer a few words, which should have been sent at the time had I been in England.

As it appears to me exceedingly unfair, to take at once for granted that the officers in charge of that ship, had been guilty of an act of carelessness or ill-judgment, by running on a known rock, which we would not confess likely to happen ourselves, and those two officers were as little likely to talk of a rock while running on it as any the service knew. At any rate the censure in the papers upon the supposed course is likely to frighten other commanders into the very danger they wish to avoid. The *Avenger* was accused of going inside of those rocks and Galita, to cut off the *Oriental* Steamer, it being a race between them. Now the alteration in course to be safely inside, would make it rather longer. I have made the same passage more than a dozen times, racing against time with the Indian mail, and always went well inside at night for safety sake, not distance, as the island of Galita can seldom be seen at night so far as the Sorelli rocks, and its bearing is the only guide for clearing them. The island is generally enveloped in clouds, especially in bad weather. I have frequently seen it at sunset, and stood towards it twenty or twenty-five miles before seeing it again.

On one passage from Gibraltar we ran so well into the bay to avoid these rocks, that we came close to the Fratelli, and hauled out before seeing Galita;—this was safe, as the Fratelli are very high. This much I have said in support of going inside, in steamers (at night) when from the westward, for security:—To approach the rocks and shore which can be plainly seen, in preference to the chance of getting near those you cannot.

On one occasion immediately after a good latitude at noon we passed within two miles, outside of them, the island clearly in sight, strong wind from the westward, extra mast-head men and myself looking out for them, without any sign whatever.

Nothing is said in the Directory supplied by the Admiralty beyond their existence and bearings from Galita. With regard to a current setting to the north-east or E.N.E. off that part of the coast, it is well known, especially with strong westerly winds.

The above has been said admitting the popular supposition that the *Avenger* was wrecked on the Sorelli rocks; but where is the proof of such being the case, beyond the fact of there being such rocks in the vicinity?

Of which there was never a doubt on board the unfortunate ship, not like the wreck on the Skirkes or Skerques?

Therefore as said above, it is only justice to the captain and master to suppose they were not. The fact of their seeing Galita plainly from the boat on a rough squally night, and the main land from the ship, (broad on the starboard bow,) not long before, it not being very high, is greatly against it.

Lieutenant Rooke and the gunner being both in their beds at the time, could not be expected to know more than they did, nor could such detail be expected from any one but the master. A ship passing over the ground so rapidly, all the charts in the world supplied to every man in the ship would not better it. I may here remark that I never saw the charts withheld from any one who desired to see them at any time, except the moment when in use.

That other rocks like the Sorelli are springing up out of deep water, and hitherto undiscovered, is not at all improbable, though it may have been surveyed. When the Wellesley got on shore in China, they could not find the rock for a length of time, and had she not been bilged would have doubted its existence. We cannot sweep the whole sea for such pyramids, still we must not doubt that there are such. Now, if the wreck of the *Avenger* is lying alongside the Sorelli rocks, it is easily found in fine weather, and if not there, it is worth the lives of many hundred people to find it.

The water in the vicinity is not so very deep as to render it improbable, it may also be liable to alterations, such as Grahams Shoal, and being in a position so often crossed, it is certainly worth the expense. With the hope that something of the kind will be done,

I remain, &c.,

*To the Editor.* H. A. M.

---

### On the Rudder and Compass.

*Cuxhaven, November*, 1849.

Sir.—Lately I had occasion to think seriously about the best form of Rudders, but here the *Nautical* forsook me. I am sure you would oblige many of your readers if you would give us some information about this point. In want of information I took to experience. The thing for me to know was, where the rudder acts most powerfully on the vessel.

Now, I took the lower part of a boat's rudder, and cut it horizontally in two equal parts, had a shaft put to each, and hung them one after the other in a sailing boat, and found to my astonishment that the upper half acted more powerfully on the boat than the lower part.

I hope that some of your correspondents, with more knowledge and larger means, will make some experiments with different rudders, and publish them for general information.

I have seen drafts of several new steamers where the form of rudders correspond with the above principle, but never heard it explained.

Allow me also to draw your attention to Dent's compass, of which the *Nautical* has not told us anything. I have tried one for more than a year in a small craft of 40 feet length, which has to encounter much severe weather and rough sea way, but cannot speak highly enough of this beautiful compass. A common compass will run all round, but Dent's compass will never deviate more than half a point, let the jerks be as severe as ever they will.

Captains now a day spend hundreds of pounds for chronometers, sextants, &c., but in bad weather, when all these nice instruments are of no use, the

compass is the only instrument to rely on, and, therefore, vessels should first of all be provided with a good compass.

To the known three L's,—Log, Lead, and Look-out, I would add a good Compass.

The Aneroid Barometer is also an instrument which may be recommended to commanders of vessels, for in very few ships, large packets and steamers included, there is seldom a good place to suspend a Marine Barometer. This Aneroid the captain may have in his state-room, or anywhere, he is sure nobody can touch it.

*To the Editor N.M.* Yours, E. H.

[We shall be very glad to hear from any of our readers on any of these subjects.—Ed.]

---

BOTTLE PAPERS.

*St. Michaels, November 21st*, 1849.

SIR.—I beg leave to transmit to you the enclosed paper forwarded to me by the British Vice Consul at Flores, off the east side of which it was picked up, on the 28th of September last.

I am, &c.,

*To the Editor N.M.* T. C. HUNT, *Consul.*

"Ship Isabella, Watson, lat. 32° 46′ N., long. 35° 8′ W., Dec. 1st, 1848. This bottle was thrown overboard for the purpose of ascertaining the direction and strength of the North Atlantic Current, and it is requested that those who may find it will publish the same.

"THOMAS CLARKE, *Commander.*"

The course of this bottle (No. 8*c* of our chart,) *made good* is about N.N.E. true, 460 miles. The part of the ocean where this was thrown overboard gives it considerable interest, being where it would have been expected to take a southerly set with the waters of the Gulf Stream; but it has gone northward. The interval is 301 days, but how long it may have remained undiscovered while on shore is a question the solution of which forms one insurmountable objection to these messengers.

---

*Corunna, Dec.* 7.—A bottle containing a written paper, of which the following is a translation:—

"Johannes, Janseen, of Leer (East Friesland,) on board the ship Caroline of Papenburg, commanded by Capt. H. A. Kleine, from Newcastle, bound with coals to Barcelona, was 26th Oct., 1849, in lat. 43° 8′ N., long. 10° 51′ W., ship in bad condition, very leaky.

"The finder of this is requested to make it known for the information of our families.

"(Signed) JOH. JANSEEN, *Mate.*"

This was picked up at sea on the 4th Dec. by a fisherman arrived at Ferrol.—*Shipping Gazette.*

No. 11*a*.—It has taken an easterly course like the rest in its vicinity.

---

THE LATE DOWAGER QUEEN ADELAIDE.

The decease of Queen Adelaide has become the subject of history. In common with other journalists we place on record the following extract from the

London Gazette announcing that event, and along with it our own humble tribute of admiration of the virtues which adorned the Queen and endeared her memory to all, and to sailors in particular.

*Whitehall, Sunday, Dec.* 2, 1849.

"This morning, at 7 minutes before 2 o'clock, her Majesty the Queen Dowager departed this life, at Stanmore Priory, to the great grief of her Majesty and of all the royal family, after a painful and protracted illness, which she bore with exemplary patience. The loss of this most excellent princess will be deeply mourned by all classes of her Majesty's subjects, to whom her many eminent virtues rendered her the object of universal esteem and affection."

The virtues of Queen Adelaide need no record of ours to perpetuate them. They are the theme of admiration among all who know them; they were implanted with the sympathizing hand of charity too deeply in many a sad and widowed heart ever to be forgotten, and her memory will descend to futurity with the blessings of thousands. Our space compels us to set aside all historical record of this excellent lady, but we cannot deny to ourselves and our readers, the satisfaction of preserving in our own pages, the following brief paragraph, so truly descriptive of her late Majesty.

Queen Adelaide interfered but little in politics. She was too serene to take part in brawling recriminations of opposing interests; and whatever her private opinions might have been as to the expediency or inexpediency of a measure—as to the right or the wrong of a principle—she never allowed them unduly to influence her conduct. She chose her intimates for their virtues, not for their opinions; and she regulated her court by morality, not by politics. She was content to go on in the quiet path which nature has marked out as woman's fit way and her only ambition was to excel in those graces of heart and mind which are woman's sole legitimate victories. Charity has ever been, as it were, her synonyme—for the Queen Dowager and munificence were always united. Churches, schools, hospitals, and private benefactions were the labour and the solace of her existence. She never heard a tale of distress without relieving it; and one of the latest acts of her life was an unexpected boon—accompanied by a letter written in her own hand—to a poor widow whose case was casually mentioned before her. These are things which are dearer to humanity than gold and precious stones; the heart will remember them long after the last echoes of the requiem shall have died away. Honour to the Queen who thus merged herself in the woman! Honour to the memory of her who made benificence, and not pomp, the end of her being and doing! * * * Her conduct during the late King's illness was such as endeared her to all about her, and gave her a place in the hearts of the people which she never lost. It was not the stint and formal kindness of the etiquette-bound Queen—it was not the selfish solicitude for interests connected with that ebbing life—it was the graceful tenderness of the woman, the devoted fondness of the wife, that smoothed the death bed of our brave old Sailor King. * * * No political or national consequences are connected with this event—it is simply the soul of a virtuous woman returning to her God. But long will be the regret of many for this bereavement; and the members of her household, the poor of her domains, the devout ministers of her faith, the children that she educated, and the sufferers that she aided, will ever mark the second day of December, 1849, with black, in sad, yet reverent and grateful memory of their and our gracious Lady, the Dowager Queen Adelaide.

[From the Shipping Gazette.]

| Vessels' Names. | Belong to. | Masters. | From. | To. | Where Wrecked. | When. |
|---|---|---|---|---|---|---|
| Active 1 | Beaumaris | Hughes | Newcastle | Dublin | Sunk Sand | Nov. 26, cs |
| Adelaide | —— —— | Foote | —— —— | —— —— | Narva B. | Oct. 15. |
| Albion | Whitby | Estell | —— —— | —— —— | Trinity S. | Oct. 7, cs |
| Alert or Sally | Whitby | —— —— | —— —— | —— —— | Hasbro Sand | Nov 16. |
| Ann 5 | Jersey | —— —— | —— —— | —— —— | C. Holland | Oct. |
| Ann | Stockton | Spence | Stockton | Hamburg | Sand I. R. | Nov. 12, cs |
| Ann | Yarmouth | Scott | Boston | —— —— | Crosss I. | Oct. 30, cs |
| Andrew White | Sunderland | Angas | {Quebec {Fallen in | Sunderland with aband. | 49¾N.18·2W Off Loop H. | Oct. 17, cs Nov. 17. |
| Ant | Irvine | —— —— | —— —— | —— —— | Wylfa Pt. | Nov. 15, cs |
| Arthur 10 | —— —— | —— —— | P. Edward I | London | St. Mary B. | Oct. 26. |
| Beta | Sunderland | Johnson | Sunderland | London | Gunfleet | Dec. 8, cs |
| Betsy | —— —— | —— —— | Liverpool | —— —— | Herd Sand | Dec. 5, cs |
| Bolivar | Shields | —— —— | Shields | London | Off Berwick | Dec. 4, cs |
| Chamcook | London | Rowland | —— —— | —— —— | Branahia B. | Oct. 20. cs |
| Chas. Phillips 15 | Padstow | —— —— | Glasgow | Watchet | Nr. Watchet | Nov. 16, |
| Clio | —— —— | —— —— | Alicante | Newcastle | Goodwin | April. |
| Com. Napier | Dundee | Hay | —— —— | —— —— | White Sea | Sept. 21. |
| Danube | —— —— | McMachin | Dantzic | Gloucester | 35N.of Scilly | Oct. 18, cs |
| Digby | St. John | —— —— | Callao | —— —— | Pan Sand | Dec. 7, cs |
| Dispatch 20 | Waterford | Walsh | —— —— | Quebec | English Pt. | Oct. |
| Eliz. Henry | London | Clarke | —— —— | —— —— | Loochoo I. | Feb. |
| Enchantress | —— —— | —— —— | Cape G. H. | Natal | Moulle P. | Aug. 25, cs |
| Endeavour | Sunderland | Cook | Sunderland | London | Gunfleet' | Dec. 8, cs |
| Europa | —— —— | —— —— | —— —— | Liverpool | Livingstone | Oct. 25, |
| Fanny 25 | Liverpool | Waring | S. Domingo | Cork | Ross Bay | Oct. 24, cs |
| Flora | —— —— | Ashley | Liverpool | Charleston | Lat.20 lon.75 | Sept. 21, cs |
| Friends | Whitstable | —— —— | —— —— | —— —— | Bridlington | Oct· 7, cs |
| Gazelle | —— —— | —— —— | P. Edward I. | St. John | C.Porcupine | Oct. 24, |
| Good Design | —— —— | Davison | Run down | —— —— | Off Flam. H. | Dec. 3. |
| Grace 30 | —— —— | McLean | London | Leith | Gunfleet | Oct· 6, cs |
| Greyhound | Exeter | Run down | Stockton | Exeter | Off Beachey | Oct. 28, ld |
| Graham | —— —— | Froud | London | Hudson Bay | By ice | Aug, 3. |
| Hendon | Sunderland | Thompson | Windau | —— —— | Windau R, | Oct. 20, cs |
| Hero | Timber | laden | —— —— | St. Johns | By fire | Oct. 25. |
| Intrepid 35 | —— —— | Leaper | Richbucto | Hull | Richbucto | Nov. 3. |
| Isabella | Hartlepool | —— —— | Hartlepool | —— —— | Elbe | Oct. 11, cs |
| Lively | —— —— | Hall | —— —— | —— —— | Bridlington | Oct. 6, cs |
| Lydia | Aberystwith | Delaroyd | Liverpool | Rotterdam | Abniltay B. | Nov. 4. |
| Margaret | Perth | Livinstone | Oddevalla | London | Off Flambro | Nov. 16. |
| Mary 40 | Dartmouth | Jarvis | Accra | Falmouth | Off Pendenis | Dec. 7, cs |
| Mary | —— —— | Taylor | —— —— | —— —— | Bridlington | Oct. 6, cs |
| Margaret & Jane | Scarborough | Skelton | —— —— | Scarborough | Off Scarbro. | Nov. 26, cs |
| Mary & Margaret | —— —— | James | —— —— | —— —— | Narva B. | Oct. 15. |
| Marquis Abercorn | Padstow | Key | Quebec | Cardiff | Mizen H. | Nov. 17, cs |
| Minerva 45 | —— —— | Smith | Baltimore | Bermuda | Foundered | Sept. 21, cs |
| Mischief | —— —— | —— —— | Para | Liverpool | Jordan S. | Oct. 21, cs |
| Nancy | Harwich | Anderson | Sunderland | Harwich | Off Flam.H | Oct. 18, cs |
| Nestor | —— —— | Pilbrow | Sunderland | Portsmouth | Norfolk C. | Dec, 8, 4d |
| Nimble | Sunderland | Goodchild | —— —— | —— —— | Off Huntcliff | Nov. 2, cs |
| Ocean 50 | Sunderland | Smith | Quebec | Sunderland | Dursay I. | Oct. 20 2d |
| Olive Branch | London | Stevenson | Seaham | London | Sizewell B. | Nov. 17 cs |
| Pandora | —— —— | Smith | Falmouth | Alexandria | Foundered | Oct. |
| Petrel | Carnarvon | Davis | Newcastle | Dublin | Suffolk C. | Nov. 26, cs |
| Phœbe | —— —— | Hodder | Coringa | Mauritius | Pinner R. | Aug, 25, cs |
| Pioneer 55 | Arbroath | Stronock | Lisbon | London | Hasbro' S. | Nov. 16, cs |
| Providentia | Dartmouth | —— —— | —— —— | —— —— | Off Dudgeon | Oct. 8, cs |
| Rachel | Whitby | By fire | Dantzic | —— —— | Moon I. | Oct. 19, cs |
| Rapid | Shields | Staincup | —— —— | On Gunfleet | Off Rough B | Dec. 10, cs |
| Repeater | —— —— | Dorman | Liverpool | Halifax | Wexford B. | Oct. 22, cs |
| Rhodes 60 | Shields | Mullen | St. John | Tyne | By fire | Sept. 25, cs |
| St. John | St. John | Burns | Quebec | Greenock | North Uist | Oct. 20 |
| St. John | —— —— | Oliver | Galway | Boston | Off C. Cod | Oct. 9, 99d |
| Seagull | —— —— | Disk | Odessa | —— —— | C. Wexford | Oct. 17, cs |
| Shepherdess | London | Stainbank | Pinang | Plymouth | Near Fowey | Dec. 7, 2d |
| Sir C. Napier 65 | —— —— | Humble | Wreck sold | for £50 | Mingan S. | Oct. |
| Sleepless | Sunderland | Straker | Quebec | Sunderland | 50° N. 9° W | Oct· 8. |
| South Stockton | —— —— | —— —— | Quebec | —— —— | Abandoned . | |
| Thistle | —— —— | —— —— | Halifax | —— —— | Plum P. I. | Sept. 19, cs |
| Vestal | Shields | Crowley | —— —— | —— —— | Easington | Oct. 7i |

| Vessels' Names. | Belong to. | Masters. | From. | To. | Where Wrecked. | When. |
|---|---|---|---|---|---|---|
| Victory 70 | Hartlepool | ——— | Archangel | London | Fraserburg | Nov 24, cs |
| Whim | Hull | ——— | Archangel | ——— | Rattray H | Nov, 25, cs |
| Whitley | ——— | Isles | Dundee | Newcastle | Elbow End | Nov. 25, cs |
| William | Whitstable | Clothier | Seaham | Whitstable | Gunfleet | Dec. 8, cs |
| William and Ann | Whitby | Storm | ——— | ——— | Winterton | Nov. 25 cs |
| William and Mary | Wivenhoe | Allen | Wivenhoe | Quebec | At Sea | Sept. 12, cs |

*Danube*, No. 18—Run foul of by an English schooner, supposed to have sunk also: crew saved by the Reine des Anges.

*Sleepless*, No. 66—Crew saved by barque, 29th May, of Jersey.

*Minerva*, No. 45—Crew saved by Cornelia, schooner, and landed at New York.

*William and Mary*, No. 75—Foundered; crew landed at Quebec.

We find the following in the *Shipping Gazette* of Oct. 22nd. "The schooner *Visitor*, Adair, from Westport, (previously reported) was fallen in with, in a sinking state by H.M. revenue cutter Neptune, and brought into Rathmullan; and when laid on the beach, there were several augur holes found in her. All her crew have been committed to our county gaol to stand their trial at the Spring Assizes." We may class this perhaps under the head of *intended wreck!*

*Isabella*, No. 36—Crew brought home by the Earl Percy (s) to Shields.

*Graham*, No. 32—One boat with master and seven men reached Okok, Labrador; the other with four men not heard of since.

*Andrew White*, No. 8—Timber ship, crew taken off by brig Nicholson.

*Pandora*, No. 52—Foundered 36 hours after leaving Falmouth: crew landed from barque Asia, at Madeira.

---

### Tablets to the Memory of the late Sir John Barrow, Bart.

Within the last few days Mr. T. Milne, an eminent sculptor from London, has visited this place, deputed by Mr. Barrow, of the Admiralty, son of the late Sir John Barrow, to superintend the erection of a tablet in the south aisle of the parish church, to the memory of the late baronet. It is from Mr. Milne's design, presents a most chaste appearance, and is inscribed as follows:— "Sacred to the memory of Sir John Barrow, Bart., LL.D.,F.R.S., 40 years secretary of the Admiralty, who was born in a small cottage in the adjoining village of Dragley Beck, on the 19th June, 1764; and departed this life on the 23rd of November, 1848. Full of years and honour. *Soli Deo Gloria.*" A tablet also in remembrance of Sir John was yesterday placed in the humble cottage, at Dagley Beck, wherein he was born, of which the following is a copy:—"In this humble cottage—the best memorial of his enterprising spirit, industry, and perseverance—was born on the 19th June, 1764, Sir John Barrow, Bart, LL.D., F.R.S., &c. who accompanied Lord Macartney's Embassy to China; who travelled far into the interior of Africa; and who was for forty years (embracing the whole period of the last war), Secretary of the Admiralty. He died in London on the 23rd November, 1848, in the 85th year of his age, remarkable for the vigour of his mind, as his latter works abundantly testify, and scarcely less remarkable for the activity of his body. *Soli Deo Gloria.*" We may mention here, that Mr. Milne, the gentleman alluded to above, is the artist who executed the colossal statue of the Duke of Wellington, at the Tower of London. He has also just completed the model of a colossal statue to be erected to the memory of Lord Nelson, in the city of Norwich, and has also furnished two designs for the Barrow Monument intended to be erected in this locality.—*Ulverstone Advertiser.*

## Examination of Masters and Mates.

A List of the Masters and Mates in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 18th October last.

### Masters.

Those having an Asterisk (*) prefixed to their Names served last as Mates.

| Names of Party who has received the Certificate. | Class of Certificates | Date of Birth. | Present or last previous service. | No. of Register ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| J. Smith | 2nd | 1822 | St Ann, 421 tons ..... | 105320 | London | Sept. 3rd |
| G. C. Smith | 2nd | 1815 | Neptune, 326 tons ... | ..... | " | — 3rd |
| W. Brown | 2nd | 1816 | Isabella, 117 tons ..... | 26645 | " | — 3rd |
| H. Barnett | 2nd | 1826 | St. George, 605 tons* | 19259 | " | — 3rd |
| A. Sproul | 2nd | 1812 | Winscales, 351 tons ... | ..... | " | — 3rd |
| D. Harrower | 1st | 1810 | Fanny, 198 tons ..... | ..... | Glasgow | — 3rd |
| W. Milligan | 2nd | 1816 | Mooltan, 600 tons* .. | ..... | " | — 5th |
| J. H. Taylor | 1st | 1822 | Vernon,* 1000 tons ... | 31328 | London | — 6th |
| W. Tregear | 2nd | 1817 | Madrid,* 315 tons ... | 118963 | " | — 6th |
| John Jefferys | 2nd | 1794 | Medora,* 235 tons ... | 24716 | " | — 6th |
| G. Paddle | 2nd | 1816 | Bintang, 264 tons..... | ..... .. | " | — 6th |
| H. Michie | 2nd | 1816 | Sibella,* 721 tons ..... | 325590 | " | — 6th |
| J. Hogg | 2nd | 1826 | Cairo,* 336 tons ..... | 26134 | " | — 6th |
| J. Silk | 2nd | 1821 | Asla,* 650 tons..... | 30988 | " | — 6th |
| L. T. Douglas | 3rd | 1814 | Douglas, 472 tons..... | ..... | " | — 6th |
| E. Voss | 3rd | 1805 | Vernon, 997 tons ..... | ..... | " | — 6th |
| A. Bowers | 2nd | 1826 | Nimrod,* 469 tons ... | 350831 | Glasgow | — 6th |
| D. Taylor | 2nd | 1800 | Morgiana,* 407 tons... | 120682 | Dundee | — 6th |
| A. R. Aldham | 2nd | 1817 | Sutlej, 1250 tons ..... | ..... | Yarmouth | — 7th |
| T. Skinner | 1st | 1816 | Bucephalus, 556 tons | ..... | Glasgow | — 8th |
| J. Whiteley | 2nd | 1803 | Danube,* 332 tons ... | 326282 | London | — 10th |
| T. Mann | 2nd | 1825 | Black Friar,* 621 tons | 323867 | " | — 10th |
| T. J. Thomas | 2nd | 1811 | Prince Charlie, 733 t. | ..... | " | — 10th |
| E. Taylor | 2nd | 1810 | Simlah, 597 tons ..... | ..... | " | — 10th |
| T. W. Allen | 2nd | 1819 | Sutlej,* 1150 tons..... | 27875 | " | — 10th |
| T. Lumsden | 3rd | 1807 | Wear Jacket, 212 tons | ..... | S. Shields | — 11th |
| J. B. Caldbeck | 1st | 1813 | Ganges, 1225 tons..... | ..... | Portsmoth | — 12th |
| R. Bramwell | 1st | 1822 | Eliza Stewart,* 525 t. | 197967 | Glasgow | — 12th |
| H. Poland | 2nd | 1819 | Nonpareil ..... | ..... | " | — 12th |
| A. H. E Sayers | 2nd | 1827 | Cruickshank,* 319 tns | 20851 | London | — 13th |
| C. Daniels | 2nd | 1814 | Watchman,* 94 tons... | ..... ... | " | — 13th |
| D. Young | 1st | 1814 | John Farnworth, 266 t. | ..... | Dundee | — 14th |
| S. Everitt | 3rd | 1827 | Robin Gray,* 286 tns. | 13479 | London | — 15th |
| F. M. Rozea | 2nd | 1823 | Clara,* 368 tons ..... | 5492 | " | — 17th |
| C. J. Brightman | 2nd | 1825 | Hindoo,* 387 tons..... | 348588 | " | — 17th |
| E. Mickleburgh | 2nd | 1813 | Elphinstone, 555* tns. | 25798 | " | — 17th |
| R. W. Wales | 3rd | 1812 | Union,* 750 tons ..... | 261854 | " | — 17th |
| T. Marshall | 3rd | 1810 | Maitland,* 648 tons ... | 386401 | " | — 17th |
| T. C. Murray | 3rd | 1804 | Friendship* 234 tons | 183501 | S. Shields | — 18th |
| P. Handyside | 1st | 1821 | Lena, 299 tons ... ..... | 140297 | Leith | — 18th |
| M. W. Wilson | 1st | 1826 | Margaret, 216 tons ... | 132603 | " | — 18th |
| B. Waily | 2nd | 1816 | Transit, 331 tons ..... | ..... | Hull | — 18th |

| | | | | | | |
|---|---|---|---|---|---|---|
| J. Gillies | 3rd | 1815 | Diadem, 714 tons* ... | 217809 | London | Sept 20th |
| C. Chapman | 3rd | 1825 | Wigrams, 288 tons*... | 456959 | " | — 20th |
| W. Reed | 2nd | 1822 | Scipio, 190 tons* ..... | 96919 | S. Shields | — 20th |
| W. Pomery | 2nd | 1817 | Elora, 87 tons ..... | ..... | Plymouth | — 21st |
| C. Gardner | 1st | 1809 | Albion, 559 tons ..... | ..... | Liverpool | — 21st |
| J. Gibson | 2nd | 1825 | Till, 258 tons* ..... | 351075 | " | — 21st |
| J. Browne | 2nd | 1824 | Condor, 911 tons*..... | 180395 | " | — 21st |
| R. H. Minchin | 3rd | 1820 | Pestonjee Bomanjee,* | 422062 | London | — 21st |
| T. A. F. Banks | 2nd | 1821 | Mary Clark, 224 tons* | 12103 | " | — 24th |
| G. Pryde | 2nd | 1820 | Balmoral, 365 tons ... | ..... | " | — 24th |
| J. E. Apps | 2nd | 1826 | City of Rotterdam192* | 20119 | " | — 24th |
| B. Paddle | 2nd | 1826 | Ben. Buck Greene 528* | 325650 | " | — 24th |
| E. Lovel | 3rd | 1826 | Forester 369 tons* ... | 326190 | " | — 24th |
| G. W. Hicks | 2nd | 1818 | Tartar, 650 tons* ..... | 32964 | " | — 24th |
| G. Rollason | 3rd | 1815 | Ann and Sarah, 222 * | 382397 | S. Shields | — 24th |
| J. H. Kincaid | 1st | 1813 | Mary Russell, 233 ton* | 209114 | Leith | — 25th |
| G. Craib | 1st | 1811 | Tweed 160 tons..... | ..... | " | — 25th |
| J. Sergent | 2nd | 1823 | Bolivar, 386 tons*..... | 117666 | London | — 27th |
| J. Smith | 2nd | 1826 | Berkshire, 583 tons* | 32441 | " | — 27th |
| J. Middleton | 2nd | 1816 | Prince Wales 582* tons | ..... | " | — 27th |
| A. Overbury | 2nd | 1815 | Clifton, 868 tons *..... | 14497 | " | — 27th |
| W. Wylde | 3rd | 1820 | Duke Wellington, 267* | 457890 | " | — 27th |
| W. Daly | 1st | 1818 | Abigail, 632 tons ..... | ..... | " | — 27th |
| W. Corston | 2nd | 1819 | Woolsington, 297tons* | 134030 | Newcastle | — 5th |
| G. A. Surflen | 2nd | 1822 | Sumatra, 354 tons* ... | 7791 | London | Oct. 1st |
| R. Hartshorne | 2nd | 1826 | Clifton, 858 tons* ..... | 13482 | " | — 1st |
| H. N. Clarke | 3rd | 1823 | Castle Eden, 930 tons | 30229 | " | — 1st |
| J. W. Watts | 3rd | 1822 | Leith, 568 tons*..... | 1894 | " | — 1st |
| C. Stewart | 2nd | 1826 | Mary Lawson, 270* ... | 75830 | S. Shields | — 2nd |
| T. Thornhill | 1st | 1813 | Castle Eden, 930 tons | ..... | London | — 4th |
| R Breckenridge | 2nd | 2823 | Hindoston, 708 tons*... | 67201 | " | — 4th |
| W. Dugdale | 2nd | 1822 | Duke of Bedford, 750* | 27422 | " | — 4th |
| P. E. Wadley | 3rd | 1823 | Mohawk, 350 tons* ... | 55478 | " | — 4th |
| T. Castle | 3rd | 1810 | Clara, 360 tons* ..... | 33887 | " | — 4th |
| J. Butcher | 3rd | 1822 | Catherine, 149 tons*... | 16071 | " | — 4th |
| N. McEarcharn | 1st | 1813 | Oriental, 396 tons..... | ..... | Glasgow | — 6th |
| P. Washington | 1st | 1823 | Letitia Hayn, 618 tons | ..... | Liverpool | — 6th |
| A. Hall | 1st | 1821 | Benlomond, 946 tons... | ..... | " | — 6th |
| C. Simonds | 1st | 1814 | Syria, 542 tons ..... | ..... | " | — 6th |
| R. Kavannagh | 2nd | 1818 | Citizen, 159 tons ..... | ..... | Hull | — 6th |
| W. Stephenson | 2nd | 1812 | Jane Goudie, 234 tons* | 23716 | London | — 8th |
| J. Roskell | 3rd | 1811 | Asia, 523 tons ..... | ..... | " | — 8th |
| G. T. Brown | 1st | 1818 | Cresswell, 574 tons ... | ..... | Newcastle | — 9th |
| J. Easson | 3rd | 1815 | Wansbeck, 250 tons ... | 85829 | " | — 9th |
| G. Duncan | 1st | 1817 | Duke Wellington, 601 | ..... | Dundee | — 10th |
| J. Peterkin | 2nd | 1819 | Dan Wheeler, 300 tons | ..... | London | — 11th |
| F. R. Stevens | 2nd | 1826 | Lawsons, 258 tons* ... | 22703 | " | — 11th |
| A. C. Aped | 2nd | 1820 | Guard, 123 tons* ..... | 121 | " | — 11th |
| G. Clark | 2nd | 1819 | William Ackers, 327* | 19142 | " | — 11th |
| J. Sceales | 2nd | 1810 | London, 720 tons ..... | ..... | " | — 11th |
| E. Stabb | 2nd | 1825 | Mariner, 112 tons..... | 80752 | Liverpool | — 13th |
| R. Inglis | 2nd | 1825 | John M'Vicar, 648 * | 211015 | " | — 13th |
| J. Roche | 2nd | 1819 | Benj. Greene, 396* ... | 75397 | London | — 15th |
| J. A. Wallinger | 2nd | 1823 | Orestes, 700 tons*..... | 259848 | " | — 15th |
| T. Rippon | 2nd | 1821 | Crown, 208 tons..... | 98868 | S. Shields | — 16th |
| J. Lyall | 1st | 1822 | Trident, 323 ..... | 98716 | Dundee | — 17th |
| D. Lindsay | 3rd | 1814 | Tasmania, 502 tons*... | 326462 | London | — 18th |
| J. Thorning | 3rd | 1802 | Vigilant, 297 tons..... | 97919 | " | — 18th |
| A. J. Tuson | 3rd | 1826 | Cleoapatra, 140 tons... | 9219 | " | — 27th |

| Rank and rating. | No. of Men. | By the Proclamation of 1846. Each Person. | Total. | By the Proclamation of 1850. Each Person. | Total. |
|---|---|---|---|---|---|
| Flag | — | 300 0 0 | 300 3 9 | 300 0 0 | 300 0 0 |
| Commander | 1 | 1041 13 4 | 1041 13 4 | 562 0 0 | 562 10 0 |
| Lieutenants 3; Master 1 | 4 | 138 17 $9\frac{1}{4}\frac{1}{3}$ | 555 11 $1\frac{1}{4}\frac{1}{3}$ | 139 12 $6\frac{1}{2}\frac{26}{47}$ | 558 10 $2\frac{1}{2}\frac{19}{47}$ |
| Surgeon 1, Paymaster 1, Mate 1, Assistant Surgeon 1 | 4 | 69 8 $10\frac{1}{2}\frac{2}{3}$ | 277 15 $6\frac{1}{2}\frac{2}{3}$ | 83 15 $6\frac{1}{4}\frac{25}{47}$ | 670 4 3 $\frac{12}{47}$ |
| Warrant Officers 3, Pay Clerk 1 | 4 | 62 10 0 | 250 0 0 | | |
| Midshipmen 2, Master's Assistant 1, Cadets 2, Clerk's Assistant 1 | 6 | 41 13 4 | 250 0 0 | 48 17 $4\frac{1}{2}\frac{42}{47}$ | 293 4 $4\frac{1}{4}\frac{17}{47}$ |
| Gunner's Mates (s.g.) 2 | 2 | 41 13 4 | 83 6 8 | 48 17 $4\frac{1}{2}\frac{42}{47}$ | 97 14 $9\frac{1}{4}\frac{37}{47}$ |
| Schoolmaster 1, Master-at-Arms 1, Boatswain's Mates 2. Carpenter's Mate 1, Caulker 1, Sail-maker 1, Ropemaker 1, Cook 1, Blacksmith 1, Serjeant of Marines 1 | 11 | 34 14 $5\frac{1}{4}\frac{1}{3}$ | 381 18 $10\frac{1}{2}\frac{2}{3}$ | | |
| Captain's Coxswain 1, Quarter-Masters 3, Captains Forecastle 2, Fore-top 2, Main-top 2 | | | | 41 17 9 $\frac{37}{47}$ | 879 13 1 $\frac{4}{47}$ |
| Corporal of Marines 1 | 13 | 27 15 $6\frac{1}{2}\frac{2}{3}$ | 361 2 $2\frac{1}{2}\frac{2}{3}$ | 27 18 6 $\frac{24}{47}$ | 27 18 6 $\frac{24}{47}$ |
| Captains Mizen-top (s.g.) 2 | | | | 41 17 9 $\frac{37}{47}$ | 83 15 $6\frac{1}{4}\frac{25}{47}$ |
| Captains Afterguard 2 | | | | 41 17 9 $\frac{37}{47}$ | 83 15 $6\frac{1}{4}\frac{25}{47}$ |
| Captains Masts 2, Steward 1, Musician 1, Cooper 1 | 7 | 20 16 8 | 145 16 8 | 27 18 6 $\frac{24}{47}$ | 139 12 $6\frac{1}{2}\frac{27}{47}$ |
| Able Seamen 43. Privates of Marines 17, Fifer 1, Cooks and Stewards 5, Second Class Seamen 9 | 75 | 13 17 $9\frac{1}{4}\frac{1}{3}$ | 1041 13 4 | 13 19 3 $\frac{12}{47}$ | 851 15 $6\frac{3}{4}\frac{27}{47}$ |
| Boys First Class | 10 | 6 18 $10\frac{1}{2}\frac{2}{3}$ | 69 8 $10\frac{1}{2}\frac{2}{3}$ | 8 14 6 $\frac{31}{44}$ | 209 8 $9\frac{3}{4}\frac{39}{47}$ |
| Boys Second Class and all others | 8 | 5 4 2 | 41 13 4 | 5 4 $8\frac{1}{2}\frac{28}{47}$ | 41 17 9 $\frac{36}{47}$ |
| Total | 145 | ..... | 4800 0 0 | ..... | 4800 0 0 |

### Perpetual Log for Ships.

Another valuable contribution to a ship's furniture has been made by the Rev. E. Berthoun of Fareham, in the shape of a perpetual log, which is likely to become not only a favourite, but will hereafter be considered almost an essential to her safety. We propose in an early number to describe it, at present it being before the Royal Society. Unlike Massey's or Walker's it has no machinery to get out of order, or require repair, and being (with the exception of about three inches) all inside of the ship, is free from any external accident. It consists of a small tube in which the pressure of the water occasioned by the way of the ship, acting on a column of mercury, indicates the velocity of sailing. The index, which very much resembles in size and appearance a common thermometer, may be fitted to hang in the captain's cabin, or in any other part of the ship, being at once ornamental and useful. We understand it is being at present fitted in H.M.S. Dauntless, and we fully anticipate every ship afloat, being hereafter supplied with it. It not only indicates the velocity, but also the lee-way should the vessel be sailing by the wind; and is highly creditable both to the judgment and good taste of the inventor.

---

## New Books.

The Practice of Navigation and Nautical Astronomy.—*By Henry Raper, R.N., Third Edition:*—Bate, London.

We took some pains on the first appearance of this work to make it known to our readers: it had peculiar claims to our attention, being the production of a Naval officer who ventured to leave the beaten path of writers on navigation, and with his own experience of the navigator's wants to methodize both the materials and their arrangement in a manner more congenial to them than his predecessors had attempted. How far he has succeeded the Third Edition of the book now before us amply proves. We have, therefore, to notice the new matter, and of this we have abundance: we find it first in the number of examples to illustrate the various methods, and next in the elementary portion of arithmetic and geometry; subjects in which we quite agree with our author navigators cannot be too well grounded.

In the former he is initiated with examples to illustrate proportion, very happily borrowed from the daily occurrences of a sea life, such for instance as the time required for watering a ship by a number of boats, each loading in a certain time, and carrying a different quantity of water; and numerous other well chosen examples of a similar nature. A short course of geometry is also introduced, sufficient to establish three propositions, which the author takes as the limit of the geometrical matter he considers necessary for the navigator; these are the well-known 47th of Euclid, the relation of the angles at the centre and circumference, and the analogy of similar triangles which constitute the basis of trigonometry.

We insisted long ago that the theory of the Law of Storms should be familiar to every commander of a ship, and we are glad to find a few pages devoted to it, for even they are sufficient to convey the principle. Already have some of our intelligent correspondents in the command of ships shewn in the

pages of the *Nautical*, the advantage they have derived foom this little knowledge. The method of ascertaining the position of a ship by means of a variation in latitude, known as "Sumner's Method," forms a very important new feature in this edition.

In the chapter on navigating the ship we find ample evidence in the length of the sections, of the introduction of much that is new. The instructions on Great Circle Sailing are more complete: information of a mixed and interesting nature appears under the heads of "obtaining water," "indications of land," "dangers," &c. collected with much care from numerous voyages. In the directions for making a proper report of a newly discovered island or reef, the author quotes the case of the island of Osnaburgh, which on its first discovery by Carteret was described as a small island, but which has since been found to have an extent of fourteen miles. Here is a good instance of the necessity of a careful attention to many particulars which from different causes may have much influence on the appearance, or the description of the same place after the lapse of many years.

We have so many demands on our space that we must conclude our first notice of Mr. Raper's valuable book, with, perhaps the most conspicuous, if not the most important improvement he has introduced. We allude to the Table of Positions of Places extending to 8,800. If anything imparts value to a mass of information of this kind, it is the correctness of the quantities given. The system adopted by the author in discussing these positions (we allude to the longitudes generally determined by chronometer,) is such as to ensure the most accurate one that can be arrived at with existing data, and, therefore, those which should be current among seamen whose calculations depend for making land on them. On this account alone we attach much importance to this table; it is one which has been sadly overlooked by authors, who have taken them as they came to hand and thereby involved themselves in all kinds of inconsistencies. But, with the view of rendering this useful table still more useful, the author has added in a compressed form much information for the seaman.

In the First Edition we found the more prominent information of lights, and also heights introduced by abbreviations; but in the present table we have numerous other particulars respecting the appearance of land, the depths on shoals, the extent or dimensions of islands and dangers; supplies, such as water and refreshments, their quality and degree of quantity, and several other particulars of information useful to the seaman, and the knowledge of which is essential to him. All this information, and much more besides, which has been evidently collected with great pains by the author from a multitude of volumes, would require almost a volume to convey in the usual manner, and desirable as it might be, could not otherwise be introduced in a work of this kind, but by a well digested system of symbols. Indeed we believe it is this very table which has so long delayed the appearance of this edition, but in the utility of which and its consequent appreciation by seamen, the author will eventually find the reward due to him. As we gave a sample of this mode of conveying information in our last volume, we may refer the reader to it, but we are quite of opinion that much information may not only be given in the manner adopted by the author of the "Practice of Navigation;" but that the charts and plans which seamen use, are no less adapted for the employment of these and additional symbols for the conveyance of even more information, such as the prevailing wind, the times and duration of wet and dry seasons, &c. This would form a beginning to which

more would gradually be added as the facility of doing so became apparent. We must now leave a further consideration of the additional matter in the work before us for another number.

---

A Complete and Universal Dictionary of Signals *for the boats of Her Majesty's Fleet, &c.—By Arthur Parry Eardly Wilmot.*—London, Cleaver.

A very comprehensive little pocket volume well adapted for its intended purpose. A good set of boat signals was much wanted, and we have no doubt Capt. Wilmot's will be a favorite in the hands of our signal officers, both from its compactness and its general application. We observe a modification of the Homograph of former days introduced, and signals by balls, oars, the semaphore, &c., in which different ways much may be done. We perceive in the title page that the author addresses his work to the commanders of yachts, merchant ships, &c., and no doubt a work that will be so extensively used, in the Royal Navy as this, cannot bring stronger claims for such extensive patronage; the advantage of making a book like this general in both services are evident. It is very properly dedicated to the First Lord of the Admiralty.

---

Problems in Astronomy, Surveying and Navigation, *with their Solutions, By H. W. Jeans, F.R.A.S.*—Wilson, Leadenhall Street.

Self instruction appears to be the object of the author in this little volume, which is accordingly well stored with problems and examples in the above subjects. It may, however, be considered more as a *mentor* of the principles and rules of those subjects than as adapted for a beginner, and would be still more acceptable with a good index. The concise method of the author as well as the compact form he has adopted will always recommend it.

---

## New Charts.

*Charts and Books Published by the Hydrographic Office, Admiralty and Sold by R. B. Bate, 21, Poultry, in Dec.* 1849.

| | | s. | d. |
|---|---|---|---|
| Archipelago, *sheet* 5, *Capt. Graves, R.N.* . . | price | 2 | 0 |
| North America, East Coast, *corrected to* 1849, *sheets* 5, 6, 7, | each | 2 | 0 |
| Tide Tables *for* 1850. . . . . | | 1 | 6 |
| Ex-Meridian Altitude Tables, *Mr. J. T. Towson*, 1849. . | | 0 | 6 |

E. Dunsterville, *Master R.N.*

*Hydrographic Office, Dec.* 19*th* 1849.

---

### Examination of Masters, and Second Masters.

*Admiralty, December* 17*th*, 1849.

The Lords Commissioners of the Admiralty having had under their consideration, the present Regulations for the Examination of Masters, and Second

Masters, of her Majesty's Fleet, as defined by Art. 21, Chap. 2, p. 22, and Art, 25, Chap. 2, page 25, of the printed Instructions ; have been pleased to direct. that on. and after, the 1st of January next, the following Regulations shall be adopted, viz :—

All Officers passing for the rank of 2nd Master, (or Officers from the Merchant Service who are Candidates for the rank of Master, under the Queen's Regulations. Art. 6, Chap. 3, page 24,) shall be examined in Seamanship, either at home, or abroad, by one Captain or Commander, and three Masters ; and after having received a Certificate of having passed such Examination, they shall undergo their Examination in Navigation, at the Royal Naval College, (instead of the Trinity House,) under the same regulations, and at the same period, as Midshipmen passing for Lieutenants ; but the Examination for Pilotage is to be conducted at the Trinity House, under the rules and regulations at present in force, but subsequent to the above mentioned examinations. Having completed the above Examinations they will be considered eligible for the rank of Master in the Royal Navy, provided they shall have served the time required by the Queen's Regulations.

The seniority of Second Masters (or of Candidates for the rank of Master) is in future to reckon from the date of their passing in Seamanship for that rank, provided they shall subsequently pass in Navigation at the Royal Naval College, on the first or second Examination day following, either of which days, they are at liberty to select ; or, in the event of an Officer having previously passed *abroad* in Seamanship, he is at liberty, after his arrival in England, to select either the first or second Examination day at the Royal Naval College ; or if belonging to a ship under orders to be paid off, on the first or second Examination day after having been so paid off, when, if he shall succeed in passing, he will be allowed Seniority from the date of his having passed abroad. But no Second Master (or Candidate for the rank of Master) will be allowed such Seniority, who shall fail in passing at the Royal Naval College, at the *first* trial, or who shall not pass at the Trinity House within a month after his having passed in Navigation.

Officers appearing before the Trinity Board for the purpose of passing in Pilotage must be qualified to take charge as Pilot of any of her Majesty's Frigates for the coast and ports for which Masters have hitherto been examined; and when they shall have served three years at least in Frigates or Sloops, they may be further examined as to their Qualifications to take charge of Line of Battle Ships, but in this examination it will be required that they pass for the largest description of first Rates. In the event of an Officer serving abroad as Acting Master of a Line of Battle Ship, the time so served may reckon as part of the aforesaid three years.

The Class of Ship, of which Officers are capable of taking charge as Pilots, will be stated in the Certificate granted to them by the Trinity House.

All Officers desirous of being examined in Pilotage at the Trinity House, either for the rank of Second Master, or as to their qualifications to serve as Masters of Frigates, or of Line of Battle Ships, should present themselves at the Admiralty, bringing with them a Certificate of their birth, and also their original Certificates for the entire period they have been employed in her Majesty's Service, or in Merchant Ships, in each of which Certificates, the word Sobriety must be included. Similar Certificates must be produced by Officers presenting themselves to pass in Navigation at the Royal Naval College.

By command of their Lordships,

J. Parker.

*To all Flag Officers, Captains, and Commanding Officers, of Her Majesty's Ships and Vessels.*

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory.
From the 21st of November, to the 20th of December, 1849.

| Month Day | Week Day. | Barometer. In Inches and Decimals. | | Thermometer In the shade. | | | | Wind. Quarter. | | Wind. Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | W. | 30·09 | 30·06 | 44 | 43 | 43 | 46 | E | E | 1 | 1 | og | o |
| 22 | Th. | 29·92 | 29·82 | 38 | 41 | 35 | 43 | SE | E | 1 | 1 | o | o |
| 23 | F. | 29·68 | 29·56 | 41 | 46 | 36 | 49 | S | S | 1 | 3 | og | or 3) (4) |
| 24 | S. | 29·38 | 29·34 | 43 | 43 | 42 | 46 | W | N | 1 | 1 | o | bc |
| 25 | Su. | 29·36 | 29·40 | 33 | 36 | 32 | 37 | N | SW | 1 | 1 | of | o |
| 26 | M. | 29·76 | 29·91 | 35 | 34 | 30 | 37 | NE | NE | 2 | 4 | of | b |
| 27 | Tu. | 30·13 | 30·13 | 30 | 32 | 26 | 34 | NW | NW | 1 | 2 | bc | b |
| 28 | W. | 30·01 | 29·93 | 27 | 28 | 25 | 30 | SE | SW | 1 | 1 | of | bcf |
| 29 | Th. | 29·92 | 29·96 | 34 | 36 | 24 | 39 | SE | S | 2 | 3 | bc | bc |
| 30 | F. | 29·84 | 29·83 | 43 | 47 | 33 | 49 | S | W | 5 | 1 | qor 1] [2] | or (3 |
| 1 | S. | 30·10 | 30·14 | 35 | 42 | 34 | 43 | SW | W | 2 | 1 | bcm | bcm |
| 2 | Su. | 29·86 | 29·71 | 47 | 48 | 37 | 49 | SW | S | 4 | 2 | or 1] [2] | or (3 |
| 3 | M. | 29·42 | 29·53 | 40 | 38 | 38 | 40 | NE | NE | 3 | 4 | or [1] [2] | op (3) |
| 4 | Tu. | 29·56 | 39·58 | 33 | 33 | 32 | 36 | N | NW | 2 | 2 | 5c | bc |
| 5 | W. | 29·38 | 29·33 | 36 | 45 | 25 | 48 | SE | S | 2 | 6 | or 2] | bor (3) (4) |
| 6 | Th. | 29·69 | 29·78 | 39 | 45 | 39 | 49 | S | S | 2 | 2 | b | b |
| 7 | F. | 29·66 | 29·56 | 43 | 46 | 38 | 47 | SE | SE | 3 | 5 | n | qo |
| 8 | S. | 29·41 | 29 58 | 42 | 43 | 41 | 46 | W | W | 3 | 2 | or [2 | b |
| 9 | Su | 29·86 | 29.92 | 32 | 43 | 31 | 45 | SE | SE | 1 | 1 | bf | bf |
| 10 | M. | 30·17 | 30.17 | 35 | 38 | 32 | 40 | E | N | 1 | 2 | gof | go |
| 11 | Tu. | 30·17 | 30·13 | 36 | 36 | 35 | 39 | NE | N | 2 | 2 | og | og |
| 12 | W. | 30 04 | 30·00 | 33 | 33 | 32 | 35 | E | E | 2 | 2 | o | o |
| 13 | Th. | 29·88 | 29·88 | 30 | 32 | 30 | 34 | E | SE | 2 | 3 | o | o |
| 14 | F. | 29·91 | 29·86 | 45 | 49 | 34 | 54 | S | S | 1 | 4 | or [2] | op (3) |
| 15 | S. | 29·93 | 29·90 | 50 | 55 | 49 | 57 | SW | SW | 5 | 3 | qor [2] | bc |
| 16 | Su. | 29 96 | 29·92 | 50 | 52 | 46 | 54 | SW | SW | 4 | 2 | bc | o |
| 17 | M. | 29.59 | 29·77 | 46 | 48 | 45 | 51 | W | W | 6 | 4 | qber [1] | bc |
| 18 | Tu. | 29·80 | 29·60 | 48 | 52 | 42 | 53 | SW | SW | 6 | 4 | qor 2] | op (3) |
| 19 | W. | 29·92 | 30 17 | 45 | 44 | 42 | 45 | NW | NW | 5 | 5 | qo | qo |
| 20 | Th. | 30·23 | 30·27 | 35 | 40 | 32 | 42 | N | N | 4 | 4 | beprs [1 | bc |

November 1849.—Mean height of the barometer =29·86 inches; mean temperature =43·6 degrees; depth of rain fallen 1·46 inches.

## NOTICE TO CORRESPONDENTS.

We have received LIEUT. MAURY'S communication, but have been prevented referring to it in our present number.

CAPT. LEIGHTON'S Mediterranean paper also just received.

Our correspondent's papers from Madras in our next. That from Calcutta also duly received, but not before our present number was filled.

CAPT. TRYNBEE shall see a proof of his paper.

London—Hunt, Printer, Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

# Naval Chronicle.

FEBRUARY 1850.

## On the Necessity of a Light on the Basses, *Coast of Ceylon.*

*Madras, Sept. 29th,* 1849.

Mr. Editor.—Adverting to my former communications under date 13th of November, 1847, and the 12th of April, 1848,* wherein I urged the necessity of fixing a light on the Great Basses, and having ever since the latter period made a point of obtaining all the information I could on that important subject, I am now enabled to furnish further evidence in support of an object so essentially wanting to give security to navigation and commerce.

2. In the first place, I have no hesitation in saying that the plan I have suggested is practicable. This assertion admits of no doubt when the respective localities of the Eddystone, the Bell, and the Skerryvore† Rocks are taken into consideration, neither of which presented so eligible or advantageous a site for the construction of a lighthouse, as the Great Basses; and yet it is well known how ably and skilfully every obstacle and every danger was surmounted in the erection of those famous towers upon the positions referred to, whence are exhibited first-rate lights to guard from wreck where many ships and lives had been lost, before those grand and useful objects were accomplished.

3. The last successful undertaking in that great national work of illu-

* Vide *Nautical Magazine* for 1848, pp. 57 and 343.

† The Skerryvore lighthouse, south of the Hebrides or Western Islands of Scotland, was completed and the light exhibited on the 1st of February, 1844; it is elevated 140 feet above the level of the sea, and has been seen from the high land of the Isle of Barra, which is distant from the rock thirty-eight miles.

minating the shores of Great Britain, was the construction of the Skerryvore lighthouse, which displays a light 150 feet above the level of the sea, and is eleven miles from the nearest land, the Island of Tyree; it is built on a rock that is less entirely submerged than the Bell Rock, but the extent of foul ground is much greater.

4. One of the able reviewers of Mr. Stevenson's narrative of the construction of this building, says, "Great as are the risks which our seamen have to meet, they are not greater than Mr. Stevenson and his workmen underwent on the rock of Skerryvore. The first shelter they raised was wrecked in a winter's storm, and they dwelt for months in a barrack upon the rock, which they could not but believe was threatened with the same fate. Cranes, windlasses, forges, and anvils, were tossed about the rock by the storm as freely as pebbles, dashing timbers to pieces and helping to tear away the works which were laid down. No tool could be left for a day without being lashed to ring-bolts, and even these were sometimes snapped off. The surf dashed in huge surges against Mr. Stevenson's window, fifty feet above the sea; and one night he tells us, the barrack reeled so with the shock of the waters, that all the men leaped from their hammocks with a fearful wail, believing that their doom was come, and that they should be swept into the seething waters. Here were they sometimes laid up for days, unable to stand upon the slippery rock, or to face the sweeping tempest, and lying in their hammocks day and night, for shelter against the bitter cold."

5. A late *Quarterly Reveiw* gives a glowing description of the construction of this and the other two edifices, and says, "Like Desdemona we listen to the tale and admire the narrator for the perils he has passed as well as for the benefits he has conferred; what those benefits are, those best can tell who have neared their country's coast in a season of starless nights and wintry gales, who have had experience of the navigator's struggle between hope deferred, and the fear of unknown danger and sudden wreck. These know the joy and confidence infused into every bosom by the first gleam of that light, which either by its steady lustre, its colour, or its periodical occultation, identifies the promontory or the reef. In that moment, when the yards are braced and the sails are trimmed, and the good ship put upon her course which she can thenceforward pursue with confidence towards the Sound, the Forth, the Mersey, or the Clyde, the merits of the Smeatons,* and the Stevensons, will best be felt; their eulogy may best be spoken."

6. These extracts proclaim the vast utility of lights wherever a danger requires that they should be fixed, and at the same time they forcibly illustrate the certainty of a successful accomplishment, when difficulties and dangers, of no ordinary kind, are firmly met by scientific zeal, persevering talent, and dauntless energy. With such startling facts, Mr. Editor, who will venture to say that it is not practicable to erect a lighthouse on the Great Basses?

7. On the 28th of January last at about 1h. P.M., I myself took a

* Mr. Smeaton built the Eddystone lighthouse.

sketch of the Great Basses, from the deck of the Peninsular and Oriental Steam Navigation Company's Ship *Bentinck*. This ledge consists of a single rock on the western extremity, and two large detached patches, each about fifty yards in length and ten feet above the level of the sea, with broken water between them. The eastern ledge is apparently the largest; and that is the position on which I recommend the lighthouse to be erected.* I have seen those rocks repeatedly; at times in a fresh breeze with a considerable swell, and when the sea broke heavily around them, and I have no doubt that in all weathers the rocks are always visible and above water; and as they are under the lee of the land during the whole of the north-east monsoon, the operation of laying the foundation, and, indeed, the whole work of construction, can be carried on throughout that season, and as boats could lie under the lee of the rocks during the south-west monsoon, I am of opinion that, when once the undertaking is commenced there would seldom be any cause to suspend it throughout the year.

8. I will now give you further evidence in favour of the project; here follows copy of a letter from the master of H.M.S. *Fox*.

*H.M.S. Fox, Madras, Dec. 23rd*, 1847.

My Dear Sir.—I have just had the pleasure of reading your very valuable remarks respecting the necessity of a beacon light being placed on the Great Basses off the S.E. coast of Ceylon, and I trust ere long your exertions may meet the attention they deserve, and that vessels may be enabled to pass this very dangerous part of the coast in safety. There is not the slightest doubt that a good light on these rocks would prove of general benefit to ships to and from the Bay of Bengal; for the set of currents of from 70 to 80 miles in the twenty-four hours, and at the same time in an uncertain direction, and this too in cloudy weather when observations cannot be obtained, are quite sufficient to convince those who may be disposed to differ with you on the subject of their error.

I am induced to think the position of these rocks on the chart supplied to H.M.S. *Fox*, very incorrect, and that their true position, together with the line of coast adjacent, is about nine miles W.N.W. from where they are placed on Captain Heywood's chart.

This of course is an error on the safe side; still the knowledge of it will serve to show more forcibly, the great impropriety of ships unacquainted with the locality, attempting the passage between these rocks and the main, in the night, or in thick weather.

I much regret the little experience I have had on this subject, prevents my giving you any really valuable information on this most important question, and conclude by assuring you, that I do in every respect agree with you as to the very great necessity of a light on the Basses; and if what I have stated will only, in the slightest degree, facilitate the grand object, it will give much pleasure to.

Yours very truly,

G. L. Bradley.

* A report from Captains Bremer and Dawson, R.N., says, "the Great Basses consist of two small fields of red granite, each of 60 or 70 feet in breadth, and 120 or 130 feet long, the utmost rise of which above the level of the sea is 9 or 10 feet." I believe this report was made upwards of twenty years ago.

9. That opinion is also supported by the practical, and recent experience of two commanders of ships, now in these roads, as follows:—

Extract from a letter from Capt. Lacroix, Commander of the Barque *Julia*, Madras, August 16th, 1849.

"On the 17th of July, at 4 P.M., we were off Dondra Head, which bore due north distant about 3½ leagues; steered E.b.S. till 8 P.M., and from eight to midnight our course was due east; from that time till 4 A.M. steered E.b.N.½N. rate of sailing 6½ to 7 knots per hour; from four to six A.M. steered E.N.E., and at six hauled up due north for the land, going at the rate of 4½ miles per hour. About seven (having been looking well out for some land-mark, and afterwards turning round and looking out to seaward,) to my great surprise I saw the breakers on the Little Basses to the southward on our starboard quarter, and not distant more than three ships' lengths. We were then going at the rate of 3½ knots per hour, the wind W.S.W. and sea smooth; got a cast of the lead and had 11 fathoms, and at the distance of half a mile from the reef 13 fathoms: having thus found myself so unexpectedly within the Basses, I stood on and kept the lead going. I saw several pointed rocks above water on the Little Basses, the highest about four feet, but as the sea was smooth, there was scarcely any appearance of breakers."

Capt. Lacroix also says, that he experienced a current setting to the eastward at the rate of 2½ and 3 miles per hour, the last twenty-four hours before making Point de Galle and Dondra Head, and reckoning upon a continuance thereof, he was led to suppose he had passed the Basses before daylight. On working the *Julia's* run from Dondra Head to seven A.M., when the Little Basses were seen, I find they would bear by dead reckoning N.N.W.¾W. distant thirty-three miles, whereas they were seen bearing S.S.W. and within 200 yards. It is difficult to conjecture when the easterly current subsided, and when it set to the northward, but the *Julia* had a most fortunate escape: a little increase of velocity in her rate of sailing during the night and she might have run upon those rocks before dawn of day: the deep-sea lead had been repeatedly hove during the night but without soundings at 40 and 50 fathoms.

*Copy of a Letter from Capt. Scaddan.*

*Barque Penelope, Madras Roads, Aug. 17th*, 1849.

DEAR SIR.—In compliance with your request of yesterday, I herewith hand you particulars as taken from the *Penelope's* log, viz. "We sailed from the Mauritius on the 7th ultimo, at 3 P.M. nautical time; nothing particular transpired until the 23rd July, at 7 A.M., when we observed a cluster of rocks bearing N.N.W. by compass, with the water breaking lightly around them; our course E.N.E.; rate of sailing five miles per hour; water smooth, and the weather very hazy, could not discern any land marks, and knowing them to be one of those reefs named the Basses,* continued our course E.N.E.

* The Little Basses bear N.E. ½ E. from the Great Basses, and are distant twenty or twenty-one miles.

until 10h. 30m. A.M., and not perceiving any other danger changed the course to N.E.b.E., when directly after the first officer desired me to look toward the starboard quarter, and to my great surprise I observed the Little Basses about a cannon shot from the ship bearing due south: I ran aloft immediately, in order to see if I could discern any other hidden dangers in passing between them and the island, the lead going at the time, but found no less than 8 fathoms in passing, and consider the passage to be from six to seven miles broad. Consequently, I consider from the course steered, and distance run from 7 A.M. up to the time of changing our course, we must have experienced a current of at least two miles and a half per hour to the N.N.E., as the course steered from leaving the Great Basses, should have placed the ship considerably south of that most dangerous reef the Little Basses, and had it been night time in passing them, we must have met immediate destruction, as there was very little broken water on, or around them; therefore the vessel must have struck before they could have been observed in time to obviate the danger."

Now, had there been a lighthouse erected on the Great Basses, it would have served as a beacon, and had it proved night time when I passed, I must have been warned of my approaching danger. It, therefore, points out the great necessity of a lighthouse being erected for the guidance of all ships having to pass those most dangerous reefs.

I am, yours respectfully,

*To Capt. Biden.* JAMES SCADDAN.

10. The two instances of the *Julia* and *Penelope* afford a singular coincidence of practical experience; but the *Penelope's* track and her escape, exemplify in a very remarkable manner the danger to be apprehended off the Basses, and shew the absolute necessity of having a beacon on those rocks; because it proves that even during the day time there was imminent danger incurred, owing to that remarkable haze so prevalent over the coast of Ceylon which precluded the discernment of any land-mark as a guide to her course; and the uncertain drift of the current with no soundings at a very short distance between the two Basses, left Capt. Scaddan no other alternative than to shape such a course as would carry the *Penelope* outside, or to the southward of the Little Basses, and that course he did take as his reckoning between 7h. A.M and 10h. 30m, A.M. when he hauled up to N.E.b.E. would bring those rocks to bear nearly due north about eleven miles, whereas as he himself says "to his great surprise, he saw them about the distance of the range of a cannon shot bearing due south." Thus the hazy atmosphere and an extraordinary current between two well known positions, with an interval of only three hours and a half, and during the day, and with every precaution, placed the ship in so perilous a situation that if it had occurred before daylight the total loss of the ship might have followed such an unexpected deviation from a given course. I am exceedingly obliged to both Captains Lacroix and Scaddan, for the valuable information they have afforded me, and if all other commanders of ships would follow their praiseworthy example, the interests of the seaman and navigator, and the welfare of all who traverse the seas, would be promoted and benefitted.

Since the publication of my former letters (through chance, enquiry, and research,) I have obtained the following information which strengthens my argument so very materially that I cannot curtail it.

"*Bombay*, 1827.—Another ship has narrowly escaped destruction on those Scylla and Charybdis dangers of the Indian Seas, the Basses Rocks on the south-east coast of Ceylon.

"We are unacquainted with the particulars of the accident, but understand that a ship of this port, the *Charles Forbes*, Brydin, commander, struck on, or in the vicinity of the Little Basses. Her rudder and false keel are said to have been torn from her, before she could be got off those dangerous and deceitful rocks. Having come from the eastward, it is by no means improbable that she struck on a ledge of sunken rocks about two miles to the south-east of the Little Basses.

"Some three or four years ago our columns contained several hints by a correspondent, on the necessity and the practicability of a lighthouse being erected on one or other of these rocks.

"We have subsequently understood that a naval officer was to have gone (but was somehow prevented) to survey them, and to report on the feasibility of such an undertaking. Its utility we should think cannot for a moment be questioned. In whatever direction a vessel is sailing, it is indispensably requisite for her to make and hug that part of the coast; and the number of ships altogether, or nearly, lost on the Basses, shows the impossibility of being able at all times to guard against the danger.

"The Great Basses rise only a few feet above water, and the Little Basses are scarcely perceptible. There are 19 fathoms soundings close alongside of both. The rapidity and variability of the currents in their vicinity are truly incredible. During the greater part of the year a thick dry haze prevails along that coast, obscuring the rocks, and making the land appear much more distant than it really is. A ship at noon in a perfect calm may perhaps be between thirty and forty miles from the land, and before midnight be drifted on them, without a single warning to the most experienced mariner of his danger.

"In addition to the many proofs of this to be found in Horsburgh, we may instance what befel the *Moira*, Captain Hornblow, some three or four years ago. She had sailed from Madras for England and struck unexpectedly on the Little Basses, and was with the greatest difficulty saved from becoming a total wreck. The known ability and experience of Captain Hornblow (and the shortness of time that had elapsed since he left Madras,) amply prove that the dangers in question will baffle the skill and vigilance of the best navigators.

"Let the mercantile community properly and strongly represent to our Indian Government the necessity of the measure, and we make little doubt, the erection of a lighthouse on the Basses would be immediately undertaken. Its cost could in a few years be gained, by a tax on all vessels navigating those seas."—*Bombay Gazette, March 14th*, 1827.

12. Here we may ask whether the mercantile community have,

during the lapse of twenty-two years, made the representations called for by the Editor of the *Bombay Gazette*. I cannot trace any record of such an appeal, and I am afraid they have not done so.

13. Reverting to these rocks, it should be generally known that there is a safe channel between the Basses, and the coast of Ceylon, which is best accomplished by hugging the shore with a good look out, and the lead and soundings well attended to, as there is a rock about fifteen feet under water mid-channel and abreast of the Little Basses. However this channel by no means detracts from the arguments which I have adduced in favour of a lighthouse, inasmuch as a lantern exhibiting a brilliant light on every point of the compass, would serve with the same warning effect to all ships passing within and without the Basses.

14. To say, or remark that, because no ship has been actually wrecked on the Basses within the last twenty years, there cannot be any real or imperative necessity for the erection of a lighthouse on one or other of those rocks, as a beacon to guard against the future, would, in my opinion, be an argument unworthy of every reflecting mind, and it ought not to be admited or entertained.

15. Vigilance and foresight, with that caution so creditable to the seaman and navigator have, on many occasions, prevented those disastrous consequences which would have occurred under any other system of management; but whilst it has been as clearly proved by the remarkable instances of shipwreck and of narrow escapes which I have enumerated,* that even under the guidance of the most vigilant care, the best

* As such a lapse of time has intervened since the publication of my letters on this subject, I think it right to recapitulate the disastrous events and escapes therein recorded.

"The *Harahjee* was totally lost on the Little Basses between 7 and 8 P.M. in September 1809.

"H.M.S. *Dædalus* was wrecked on the Little Basses. several Indiamen under her convoy grazed the Rocks, and had a narrow escape, July 2nd, 1813.

"Ship *Contractor* in 1792, was surprised by seeing breakers on the Basses, on her starboard bow, on the 1st of August, at 10 P.M., when it was thought she was outside, and had a narrow escape.

"Ship *Soliman Shah*, got close to the Basses during the night, brought up all standing, and was compelled to cut her cable next morning to cast clear of the danger.

"H.M.S. *Virginia*, was nearly lost by getting unexpectedly between the Basses and the shore during the night.

"H.C.S. *Ceres*, with a fleet in company, bound to Madras and China in 1798, was driven by a strong current within the Basses during the night, when the discovery of breakers warned them of the danger, and they escaped.

"In May 1804, H.M.S. *Phæton* and *Sir E. Hughes*, got unintentionally between the Basses and the main land during the night; and at 5 A.M. saw breakers and the Little Basses under their lee; they ran through the inner passage without knowing that they had done so till dawn of day.

"In January 1821, the ship *Earl of Moira*, got inside of the Basses, owing to a strong and an unexpected current, struck on the rock in mid-channel, between the Little Basses and the coast, lost her rudder, and narrowly escaped destruction.

"Ship *Sultany* pursuing the inner channel grazed over the same rock on which the *Moira* struck, but fortunately escaped without damage.

"Peninsular and Oriental Steam Navigation Company's ships *Hindostan* and *Pekin*, in 1844 and 1847 were driven unexpectedly near the rocks and escaped.

and most experienced commanders may, on their approach to these dangers, be perplexed and baffled in all their calculations, and that one hour of darkness and uncertainty might have led to inevitable destruction, assuredly the plea of necessity will be conceded by every true friend to the maritime interests of his country. In a word, the safe-guard that is urged and needed, should as speedily as possible receive the sanction and approval of the Colonial government; even the loss of time by cautiously giving the Basses a wide berth both in sailing ships, and steamers, together with the risk of getting to leeward in the one class of vessels and the cost of coal in the other, are something in favour of the good cause; but when by our neglect we may hereafter have the painful duty of placing on record shipwreck and all its train of calamitous results, there ought to be no further question on the subject.

16. In conclusion, I may venture to state that the late Admiral Inglefield, Commodore Plumridge, Captains Wilcox and Hoseason, and other naval officers, have declared their favourable opinion of the light in consideration, and that it has received the approval of all the commanders of the P.&.O.S.N. Company's Steamers* and is also supported by the favourable opinion of every commander and officer in the merchant service with whom I have had any communication about the Basses. And further, I am happy to say that I can boast of having the influential aid of Joseph Hume, Esq., M.P., who has promised to give the project his most strenuous support, and we all know with what persevering zeal and energy he advocates every question which he can bring to bear on the maritime affairs of our common country. Under all these circumstances I am led to entertain the cheering prospect of a successful result, and I venture to hope 'ere very long, a beacon on the Great Basses will add to those invaluable edifices, which so nobly uphold the cause of science and humanity, and reflect so much honour and credit on the councils of the British Empire at large.

I am, Sir, &c.,

CHRISTOPHER BIDEN.

*To the Editor N.M.*

---

H.M.S. *Melampus* in Sept. 1847, got most unexpectedly within the Basses, and H.C. steam frigate *Mozuffer*, experienced a very strong current, but a good look out and attention to soundings led to the discovery of danger, which was supposed to be many miles distant.

In October 1825, the barque *Circassian* discovered rocks close under her lee bow at midnight, when it was thought a wide berth had been given to the Basses; she hauled off and escaped.

* I may here observe, that whilst my friend Captain Kellock admits the necessity of a light in the vicinity of the Basses, he rather inclines to placing it on the adjacent coast; but, when we consider how difficult it is in a hazy atmosphere to judge of the distance, from the land; and taking for our example the similar localities of the Bell, the Eddystone, and the Skerryvore Rocks and the Basses, which are respectively from nine to twelve miles from the main land, I think there cannot remain a doubt that the lighthouse should stand on the insulated rock, and not upon the coast, and it should at least be 120 feet above the level of the sea, with a light of the most brilliant force, so that it would be visible beyond the Little Basses.

## On the Practicability and advantages of obtaining a Sea Rate for a Chronometer.—*By H. Toynbee, late Commander of the Ellenborough, East Indiaman.*

[Read before the Royal Astronomical Society, May 11th, 1849, and noticed in their proceedings of that date.]

Conceiving that it might be possible to obtain a daily rate and original error for a chronometer by lunar observations, and having remarked that those taken ⊙ W. of ☾, differred widely from those taken ⊙ E. of ☾; it occurred to me to divide the difference of the errors for Greenwich time, resulting from two series of observations on the same side of the moon, by the interval of time (always nearly a month) to find a daily rate; and then to make use of this rate, to bring the errors deduced from observations taken on opposite sides of the moon to a corresponding date, the mean of which would give the original error sought.

The chronometer, No. 1735, constantly referred to in the explanatory tables, is a very good one by Dent. As, during a gale of wind August 20th, 1848, when off the Cape of Good Hope, it fell from its stand, and my second chronometer was going badly, the practical value of the method was fairly tested in the attempt to supply to the injured chronometer another original error and daily rate. The series of observations taken for that purpose are comprised in Table No. 1, by referring to which it will be seen that they gave the Greenwich time within 16 seconds of the truth.

Four days after the last series of observations were taken, the ship anchored in Madras Roads, when I was so encouraged by the satisfactory result of this attempt, that I determined to make use of every opportunity which offered during the passage from Calcutta to England, to subject the method to a full and fair investigation.

The results to which this investigation led, are exhibited in the six tables of observations which follow, and by which, after being a month at sea, I was enabled to assign a daily rate, and original error to the chronometer every fortnight of the passage.

The daily rate thus found agreed within two tenths of a second with that ascertained by the drop of the ball, whilst at anchor for four days in Table Bay; the latter however was so short a period, that I ventured to assume the rate deduced from lunar observations to be nearer the truth, and adopted it for the remainder of the voyage.

On arriving in England, the last original error found by the mean of easterly and westerly lunars, brought on by the last lunar rate, when applied to the time by chronometer, shewed only 8·57s more than true Greenwich time.

As a matter of curiosity merely, I have brought on to the date that I obtained true Greenwich time from the maker, the mean of all the errors, by the mean of all the rates found during the passage, and the

result is 9·01s more than true Greenwich time, agreeing with the above to rather less than 0·5s of a second.

My usual practice was to take two or three sets of observations each day that an opportunity presented itself, making it a rule never to reject a set if it gave the same error within 20 seconds of time as the others which were obtained on the same day, and that even though they might all differ materially from those taken on previous days. I cannot, however, remember having occasion to reject more than two sets.

A good exemplification of the working of this rule is to be seen in four sets of observations taken February 15th, 1849, which, although the weather was fine, and they appeared to me better than most of those previously taken, differed more than a minute in shewing the error for Greenwich time, when compared with the observations of the preceding and following days. The difference in question was probably attributable to variations of atmospheric refraction, but any prejudicial effect which might have been expected from it, was neutralized by meaning a great number of sights, and the daily rate deduced, agreed with the mean of two rates found, one immediately before and the other after it, by six-hundredths of a second.

On the 20th February the angular distance measured was 31°, which is smaller than any given in the *Nautical Almanac*, and to find what the true distance was, the following method was adopted. Observing that the difference of the angular distance in *three* hours, had been nearly the same for the twelve hours previous to the last distance given in the *Nautical Almanac*, I assumed it would be the same for the three succeeding hours, and made use of it accordingly.

Many observers entertain an objection to very small or very great distances: to show that their objection is not sustained, the angular distances from which the errors were deduced are inserted in a separate column.

It will be remarked that the errors found by distances taken ☉ E. of ☾ are generally between forty and fifty seconds less than those deduced from ☉ W. of ☾ observations.

The six daily rates deduced from independent observations taken during the passage between Calcutta and England, are 7·96s, 7·68s, 7·52s, 7·48s, 8·09s, and 7·69s; the mean of which is 7·74s: now 7·8s is the rate given to the chronometer on leaving the Cape. I felt such confidence in this chronometer, thus corroborated by all the lunar observations, that although no land had been seen since leaving Table Bay, a northerly gale blowing as I entered the English Channel, I ventured to steer for passing within a few miles of St. Agnes light, and sighted it in the middle of the night, bearing as my calculations had led me to expect.

A few necessary remarks accompany the tables, which are followed by a brief exposition of some of the advantages to be derived from this method of rating chronometers, and a few remarks on the instrument employed, &c.

| No. 1.] | To Find a Daily Rate. | | | | To Find Original Error. | | |
|---|---|---|---|---|---|---|---|
| Date. | ☉ E of ☾ No of sights taken. | Error for Greenwich time. | | Ang. dist. | Date. | | Error for Greenwich time |
| 1848. | | m. s. | | ° | 1848. | | m. s. |
| Aug. 24th | The mean of 5 sights made 1735 Chronometer.... | 3 35·5 | slow. | 55½ | Sept. 3·4d | The mean of 7 sets of Lunars taken ☉ W of ☾ made 1735 Chron. | 6 1·33 slow |
| " " | . . Do. . . . Do. . . | 3 21·9 | " | | | The above daily rate 7·88s × 15·1d the time between Sept. 3·4d and 18·5d.....+ | 1 58·99 " |
| " " | . . Do. . . . Do. . . | 3 36·7 | " | | | | |
| | 3) | 9 94·1 | | | | | |
| " " | The mean of 3 sets of sights made 1735 Chron. ... | 3 31·37 | " | | Sept 18·5d | The ☉ W. of ☾ Lunars make 1735 Chronometer ..... | 8 00·32 " |
| | | | | ° | " | The ☉ E. of ☾ Lunars ...Do..... | 6 52·23 " |
| Sept. 18th | The mean of 5 sights made 1735 Chronometer. ... | 6 24·3 | slow. | 114 | | Sum of E. & W. Lunars .....2) | 14 52·55 " |
| " " | . . Do. . . . Do. . . | 6 41·8 | " | | | | |
| " " | . . Do. . . . Do. . . | 6 58·6 | " | | " | The mean of E. & W. Lunars make 1735 Chronometer..... | 7 26·28 " |
| " 19th | . . Do. . . . Do. . . | 6 56·7 | " | 100½ | | | |
| " " | . . Do. . . . Do. . . | 7 7·0 | " | | Oct. 1st | The error found by the flash of Madras gun was ..... | 9 20·3 " |
| " " | . . Do. . . . Do. . | 7 5·0 | " | | | The above daily rate 7.88s × 12·5d elapsed time between Sept. 18·5 and Oct. 1st..... — | 1 38·5 " |
| 6)111 | 6) | 41 13·4 | " | | | | |
| Sept. 18·5 | The mean of 6 sets of sights made 1735 Chron. ... | 6 52·23 | " | | Sept 18 5d | The Madras error brought back to the date of the Lunars by the above rate ..... | 741·8 " |
| | By 25·5d the elapsed time, divide this diff. of errors | 3 20·86* | " | | | | |
| | And a daily rate is found of . . . | 7·88s losing | | | | | |

The whole of the first series of observations were taken on the 24th of August which was four days after the Chrono ueter fell. It will be observed that there is a difference of 15·5s or about 4 miles of long. between the error found by the mean of Lunar observations and that determined after arriving at Madras. The daily rate deduced from the flash of the gun at Madras was 8·7s losing. The ship was only six days there, and during that time a great quantity of cargo was discharged.

* This difference is found by subtracting the error on Aug. 24th from that on Sept. 18·5d; and the elapsed time by which it is divided is the difference between these two dates. This remark is applicable to each of the following tables.

No. 2.] TO FIND A DAILY RATE.

| Date. | ☉ E of ☾ No. of sights taken. | Error for Greenwich time. | Ang. Dist. |
|---|---|---|---|
| 1848. | | m. s. | ° |
| Dec. 19th | The mean of 5 sights made 1735 Chronometer | 18 39·5 slow | 71 |
| " " | . . Do. . . . Do. . . | 18 42·5 " | " |
| " " | . . Do. . . . Do. . . | 18 24·5 " | " |
| " 20th | . . Do. . . . Do. . . | 18 36·5 " | 60 |
| " " | . . Do. . . . Do. . . | 18 35·0 " | " |
| " 21st | . . Do. . . . Do. . . | 18 9·5 " | 49 |
| " " | . . Do. . . . Do. . . | 18 17·5 " | " |
| " 22nd | . . Do. . . . Do. . . | 18 30·4 " | 38 |
| " " | . . Do. . . . Do. . . | 18 25·4 " | " |
| 9)183 | 9) | 260·8 | |
| Dec. 20·3d | The mean of 9 sets of sights made 1735 Chron.... | 18 28·98 slow | |
| 1849. | | | |
| Jan. 16th | The mean of 5 sights made 1735 Chronometer ... | 22 7·6 " | 91 |
| " 17th | . . Do. . . . Do. . . | 22 4·8 " | 80 |
| " " | . . Do. . . . Do. . . | 22 14·5 " | " |
| " " | . . Do. . . . Do. . . | 22 16·3 " | " |
| " 18th | . . Do. . . . Do. . . | 22 4·6 " | 69 |
| " " | . . Do. . . . Do. . . | 22 19·4 " | " |
| 6)103 | 6) | 67·2 | |
| Jan. 17·2d | The mean of 6 sets of sights made 1735 Chron.... | 22 11·2 slow | |
| | By 27·9d the elapsed time divide the diff. of errors | 3 42·22 | |
| | And the result is a daily rate for 1735 Chron. of | 7·96s losing | |

TO FIND AN ORIGINAL ERROR

| Date. | | Error for Greenwich time |
|---|---|---|
| 1849. | | m. s. |
| Jan. 0·4d. | From table No. 3. The mean of 5 sets of Lunars taken ☉ W. of ☾ made 1735 Chronometer ..... | 20 45.4 slow |
| | The above daily rate 7·96s×16·8d. the time between Jan. 0·4 and 17·2d.....+ | 2 13·73 " |
| " 17·2d. | The ☉ W. of ☾ Lunars made 1735 Chronometer ..... | 22 59·13 " |
| " " | The ☉ E. of ☾ Lunars .....Do. ... | 22 11·20 " |
| | Sum of E. & W. Lunars ..... ..... | 45 10·33 " |
| " " | The mean of errors by E. & W. | 22 35·17 " |
| " " | Ths original error given in Calcutta brought on by Lunar rate. | 22 40·65 " |
| " " | Do. by the rate found there ..... | 21 47·80 " |
| " " | The error given at the Cape brought back by Lunar rates. | 22 11·57 " |

The error by the mean of E. & W. Lunars is less than the Calcutta error brought on by Lunar rates by ..... 5·5s=1½′ long. nearly
Do. is more than the Calcutta error brought on by a rate found there by 47·4s=12′ "
Do. is more than the Cape error brought back by Lunar rates by ...23·6s=6′ "

Note.—The ship was very quiet for several days after mooring off Calcutta; a series of Hindoo holidays having prevented the discharge of her cargo, up to the 19th day of her lying there the ball gave a daily rate of 7·8s losing to 1735 Chron, Afterwards the rate gradually decreased, owing no doubt to the vibration caused by moving cargo about; and on 12th of Dec. 1848, I left Calcutta with an original error for this Chron. of 17m. 52·5s slow, (allowing the long. in time of Fort William to be 5h. 53m. 26s.) and a daily rate of 6·5s losing.

No. 3.] TO FIND A DAILY RATE.

| Date. | ☉ W. of ☾ No. of sights taken. | Error for Greenwich time. | Ang. dist. |
|---|---|---|---|
| 1848-9. | | m. s. | ° |
| Dec. 29 | The mean of 5 sights made 1735 Chronomter..... | 20 43·8 slow | 41 |
| " " | . . Do. . . . Do. . . | 20 35·4 " | 42 |
| Jan. 1=32 | . . Do. . . . Do. . . | 20 38·8 " | 78 |
| " 32 | . . Do. . . . Do. . . | 20 45 " | " |
| " 4=35 | . . Do. . . . Do. . . | 21 04 " | 118 |
| 5)157 | 5) | 103 47 | |
| Jan. 0·4d | The mean of 5 sets of sights made 1735 Chron.... | 20 45·4 " | |
| 1849. | | m. s. | ° |
| Jan. 29 | The mean of 5 sights made 1735 Chronometer ... | 24 31·4 slow | 62 |
| " " | . . Do. 4 . . . Do. . . | 24 29·1 " | " |
| " 31 | . . Do. 5 . . . Do. . . | 24 47·3 " | 89 |
| Feb. 1=32 | . . Do. . . . Do. . . | 24 32·2 " | 102 |
| 4)121 | 4) | 140 | |
| Jan. 30·3d | The mean of 4 sets of sights made 1735 Chron.... | 24 35·0 " | |
| | By 29·9d the elapsed time, divide the diff of errors | 3 49·6 | |
| | And the result is a daily rate for 1735 Chron. of | 7·68s losing | |

TO FIND AN ORIGINAL ERROR.

| Date. | | Error for Greenwich time. |
|---|---|---|
| 1849. | | m. s. |
| Jan. 17d·2 | From Table No. 2, the mean of 6 sets of Lunars taken ☉ E. of ☾ made 1735 Chronometer..... | 22 11·2 slow |
| | The above daily rate 7·68s×13·1d the elapsed time between Jan. 17·2d and 30·3d .....+ | 1 40·61 " |
| " 30·3 | The ☉ E. of ☾ Lunars made 1735 Chron..... | 23 51·81 " |
| " " | The ☉ W. of ☾ Lunars.....Do. .... | 24 35 " |
| | Sum of E. and W. Lunars..... 2) | 48 26·81 " |
| " " | The mean of E. and W, Lunars made 1735 Chronometer..... | 24 13·41 " |
| " " | The original error given in Calcutta brought on by Lunar rates | 24 21·26 " |
| " " | Do. brought on by rate given there ..... | 23 13·0 " |
| " " | The original error given in the Cape brought back by Lunar Rate | 23 52·18 " |

The error by the mean of E. & W. Lunars is less than the Calcutta error brought on by Lunar rates, by .....8s.=2′ long. nearly.
Do. Do. more than the Calcutta error brought on by rate found there by 1m. 0s.=15′ " "
Do. Do. more than the Cape error brought back by Lunar rate by .....0·21s.=5¼′ " "

When I sighted the Southern Coast of Africa, the cross bearings placed the ship so nearly as possible in the same position as the Chron. with the Lunar error and rate applied. On examining my chart I found that it agreed with the mean of Lunars in placing the Cape Observatory in about 18° 23′ E., or about 5¼′ W. of the position assigned by the latest authorities.

| No. 4.] | To Find a Daily Rate. | | | | To Find an Original Error. | | |
|---|---|---|---|---|---|---|---|
| Date. | ☉ E. of ☾ No. of sights taken | Error for Greenwich time | | Ang. Dist. | Date. | | Error for Greenwich time |
| 1849. Jan. 17·2d | By referring to Table No. 2 it will be seen that the mean of 6 sets of ☉ E. of ☾ Lunars made 1735 Chronometer..... | m. s. 22 11·2 | slow | ° | 1849. Jan. 30·3d | The mean of 4 setsof Lunars taken ☉ W. of ☾ (vide Table 3,) made 1735 Chronometer..... | m. s. 24 35 0 slow |
| Feb. 14th | The mean of 5 sights made 1735 Chronometer ... | 25 54·0 | " | 99½ | | The above daily rate 7·52s×17·3d the elapsed time between Jan 30·2d & Feb. 16·6d .....+ | 2 10·1 |
| " " | . . Do. . . . Do. . . | 25 40·2 | " | " | | | |
| " " | . . Do. . . . Do. . . | 26 9·3 | " | " | | | |
| " 15th | . . Do. . . . Do. . . | 25 9·7 | " | 88 | Feb. 16·6d | The ☉ W. of ☾ Lunars made 1735 Chronometer..... | 26 45·1 " |
| " " | . . Do. . . . Do. . . | 25 14·1 | " | " | | | |
| " " | . . Do. . . . Do. . . | 24 46·5 | " | " | " | The ☉ E. of ☾ .....Do. ..... | 25 59·88 " |
| " " | . . Do. . . . Do. . . | 25 11·7 | " | " | | | |
| " 18th | . . Do. . . . Do. . . | 26 21·8 | " | 55 | | Sum of E. & W. Lunars ..... | 52 44·98 |
| " " | . . Do. . . . Do. . . | 26 33·6 | " | " | | | |
| " 19th | . . Do. . . . Do. . . | 26 06·0 | " | 42 | " | The mean of E. &W. Lunars made 1735 Chronometer..... | 26 22·49 " |
| " " | . . Do. . . . Do. . . | 26 15·9 | " | " | | | |
| " 20th | . . Do. . . . Do. . . | 27 11·5 | " | 31 | " | The Calcutta error brought on by Lunar rate..... | 26 31·36 " |
| " " | . . Do. . . . Do. . . | 27 24·1 | " | " | | | |
| 13)216 | | 13) 77 58·4 | | | " | The original error found in the Cape, Feb. 8th brought on by Lunar rates ..... | 26 3·67 " |
| Feb. 16·6 | The mean of 13 sets of sights made 1735 Chron. | 25 59·88 | slow | | | | |
| | By 30·4d the elapsed time, divide the diff of errors | 3 48·68 | | | " | Do. brought on by a rate of 7·8s given there ..... | 26 6·1 " |
| | And the result is a daily rate for 1735 Chron. of | 7·52s losing | | | | | |

The error by the mean of E. & W. Lunars is less than the Calcutta error brought on by Lunar rates by .....9s.=2¼′ long.
Do. Do. more than the Cape error brought on by Lunar rates by ..... 19s.=4¾′ "
Do. Do. more than the Cape error brought on by a rate given there by .....16s.=4′ "

The longitude of Cape Town Observatory used for giving a fresh original error to the Chron. was 18° 28′ 15″ E. Norie's Epitome gives it 18° 23′ 35″ E., agreeing with my observations. The former was taken from a printed notice supplied by the authorities of the place, I therefore allowed it to be the more correct of the two.

No. 5.] TO FIND A DAILY RATE.

| Date. | ⊙ W. of ☾ No. of sights taken. | Error for Greenwich time. | Ang. Dist. |
|---|---|---|---|
| 1849. | | m. s. | ° |
| Jan. 30·3d | By referring to Table No. 3, it will be seen that the mean of 4 sets of Lunars taken ⊙ W. of ☾ made 1735 Chronometer ..... | 24 35·0 slow. | |
| Feb. 26 | The mean of 2 sights made 1735 Chronometer ... | 27 52·5 " | 44 |
| " 27 | . . Do. 5. . . . Do. . . | 28 4·7 " | 58 |
| " " | . . Do. , . . Do. . . | 27 59·5 " | " |
| " 28 | . . Do. . . . Do. . . | 28 16·2 " | 72 |
| Mar 1=29 | . . Do. . . . Do. . . | 28 21·8 " | 86 |
| " 29 | . . Do. . . . Do. . . | 28 23·0 " | " |
| " 2=30 | . . Do. . . . Do. . . | 28 5·6 " | 99 |
| " 2=30 | . . Do. . . . Do. . . | 28 16·8 " | " |
| " 3=31 | . . Do. . . . Do. . . | 28 38·2 " | 112 |
| " 3=31 | . . Do. . . . Do. . . | 28 38·3 " | " |
| 10)288 | | 10) 282 36·6 | |
| Mar. 0·8d | The mean of 10 sets of sights made 1735 Chron. | 28 15·66 " | |
| | By 29·5d the elapsed time, divide the diff. of errors | 3 40·66 | |
| | And the result is a daily rate for 1735 Chron. of | 7·48s losing | |

TO FIND AN ORIGINAL ERROR.

| Date | | Error for Greenwich time |
|---|---|---|
| 1849. | | m. s. |
| Feb. 16·6d | The mean of 13 sets of Lunars taken ⊙ E. of ☾ (vide Table4 ) made 1735 Chronometer ..... | 25 59·88 slow |
| | The above found rate 7·48s×12·2d the elapsed time between Feb. 16·6d and March 0·8d .....+ | 1 31·26 " |
| Mar. 0·8d | The ⊙ E. of ☾ Lunars made 1735 Chronometer ..... | 27 31·14 " |
| " " | The ⊙ W. of ☾ .....Do..... | 28 15·66 " |
| | Sum..... | 55 46·80 " |
| " " | Mean of E. and W. Lunars Do... | 27 53·40 " |
| " " | The error found in Calcutta brought on by Lunar rates..... | 28 2·62 " |
| " " | Do. Table Bay .....Do..... | 27 34·93 " |
| " " | Do. Do. brought on by a rate given there..... | 27 41·2 " |

The error by the mean of E. &. W. Lunars is less than the Calcutta error brought on by Lunar Rates by ..... 9s.=$2\frac{1}{4}'$ long.
Do. Do. more than the Cape error brought on by Lunar rates .....18s.=$4\frac{1}{2}'$ "
Do. Do. more than the Cape error brought on by a rate given there by...12s. =3′ "

No 6. ]

## To Find a Daily Rate.

| Date | ⊙ E. of ☾ No. of sights taken. | Error for Greenwich time. | Ang. dist. |
|---|---|---|---|
| 1849. | | m. s. | ° |
| Feb. 16·6d | In Table No. 4 it will be seen that the mean of 13 sets of ⊙ E. of ☾ Lunars made 1735 Chron. | 25 59·88 slow | |
| Mar. 14th | The mean of 5 sights made 1735 Chron..... | 29 10 5 " | 118 |
| " 15th | . . Do. . . . Do. . . | 29 6·7 " | 107 |
| " 17th | . . Do. . . . Do. . . | 30 12·2 " | 85 |
| " 18th | . . Do. . . . Do. . . | 29 40·3 " | 74 |
| " 19th | . . Do. . . . Do. . . | 29 59·7 " | 62½ |
| " " | . . Do. 3 . . . Do. . . | 30 00·3 " | " |
| " 20th | . . Do. 5 . . . Do. . . | 30 21·6 " | 50 |
| " " | . . Do. . . . Do. . . | 30 29·4 " | " |
| " 21st | . . Do. . . . Do. . . | 30 26·1 " | 38½ |
| " " | . . Do. . . . Do. . . | 30 43·6 " | " |
| 10)184 | 10) | 300 10·4 | |
| Mar. 18·4 | The mean of 10 sets of sights made 1735 Chron. | 30 1·04 slow | |
| | By 29·8d the elapsed time divide the diff. of errors | 4 1·16 | |
| | And the result is a daily rate for 1735 Chron. of | 8·09s losing | |

## To Find an Original Error.

| Date. | | Error for Greenwich time |
|---|---|---|
| 1849. | | m s. |
| Mar 0·8d | The mean of 10 sets of Lunars taken ⊙ W. of ☾ (vide Table 5) made 1735 Chronometer..... | 28 15·66 slow |
| | The above found rate 8·09s × 17·6d the elapsed time between Mar. 0·8d and 18·4d .....+ | 2 22·38 " |
| " 18·4d | The ⊙ W. of ☾ Lunars made 1735 Chronometer ..... | 30 38·04 " |
| " " | The ⊙ E. of ☾ Lunars .....Do.... | 30 1·04 " |
| | Sum..... | 60 39·08 |
| " " | Mean of E. and W. Lunars Do.... | 30 19·54 " |
| " " | The Calcutta error brought on by Lunar rates ..... | 30 25·00 " |
| " " | The error given in Table Bay brought on by Lunar rates..... | 29 57·31 " |
| " " | Do. by the rate given there..... | 29 58·50 " |

The error by the mean of E. and W. Lunars is less than the Calcutta error brought on by the Lunar rates by... 5s.=1¼′ of long.
Do. Do. more than the Cape error brought on by Lunar rates by ..... 22s=5½′ "
Do. Do. more than the Cape error by a rate given there ..... 21s.=5¼′ "

It will be noticed that these differences are nearly the same throughout the whole of the tables; which will lead to the well founded conclusion, that if the last error found by the mean of E. and W. Lunars, when applied to the time by the Chronometer, showed the true Greenwich time within 8·6s, each previous one found by the same means, was as near the truth.

No. 7.] TO FIND A DAILY RATE.

| Date. | ⊙ W. of ☾ No. of sights taken. | Error for Greenwich time | Ang. Dist. |
|---|---|---|---|
| 1849. | | m. s. | ° |
| Mar 0·8d | In Table No. 5 it will be seen that the mean of 10 sets of sights taken ⊙ W. of ☾ made 1735 Chronometer | 28 15·66 slow | |
| Mar. 27d | The mean of 5 sights made 1735 Chron. | 31 44·9 " | 40 |
| " " | Do. not very good | 31 29·6 " | |
| 54 | | 2) 63 14·5 | |
| Mar. 27d | The mean of 2 sets of sights made 1735 Chron ... | 31 37·25 slow | |
| | By 26·2d the elapsed time divide the diff. of errors | 3 21·59 | |
| | And the result is a daily rate for 1735 Chron. of | 7·69s losing. | |

The error by the means of E. and W. Lunars is less than the Calcutta error brought on by Lunar rates by..... 9s. $=2\frac{1}{4}'$ long.
Do. is more than the Cape error brought on by Lunar rates by 19s. $=4\frac{3}{4}'$ "
Do. Do. by a rate given there by 17s. $=4\frac{1}{4}'$ "
Do. is more than that found on the ship's arrival in England by 8·6s $=2\frac{1}{4}$ "

It will be seen that the error found by the mean of E. and W. Lunars (although only 2 westerly sets were taken, both on the same day, and one not very good,) shows only 8·6s more Greenwich time than the truth, which is as small an error as any one can expect to *leave* port with, especially as there are doubts extending to 2 or 3 miles respecting the true longitude of several places.

TO FIND AN ORIGINAL ERROR.

| Date. | | Error for Greenwich time. |
|---|---|---|
| 1849. | | m. s. |
| Mar 18·4d | The mean of 10 sets of sights taken ⊙ E. of ☾ (vide Table 6) made 1735 Chron | 30 1·04 slow |
| | The above found rate 7·69 × 8·6d. the elapsed time between Mar 18·6d and 27d | + 1 6·13 " |
| Mar 27th | The ⊙ E. of ☾ Lunars made 1735 Chronometer | 31 7·17 " |
| " " | The ⊙ W. of ☾ Do. | 31 37·25 " |
| | Sum | 62 44·42 " |
| " " | The mean of E. & W. Lunars ... | 31 22·21 " |
| " " | The Calcutta error brought on by the Lunar Rates | 31 31·13 " |
| " " | The Cape do. Do. | 31 3·44 " |
| " " | Do. by the rate given there | 31 5·60 " |
| " " | The error given by the maker on Feb. 10th after the ship's arrival in England brought back to Mar. 27th by the last found Lunar Rate | 31 13·64 " |

Having it is hoped, sufficiently elucidated the method, and its practical application, I proceed to point out a few of its more obvious advantages.

*First.*—It is the only method which (so far as I am aware) gives a *sea rate* to a chronometer. The motion of a ship at sea differs so much from what exists whilst she is in port, especially where a large quantity of cargo or stores must be taken in or discharged, as well as from the quiet of a maker's shop, that most chronometers vary their rates after leaving port. The chronometer mentioned in the tables exemplifies this. Before going into Madras, during the first few days in Calcutta, before commencing to discharge cargo; and a month after leaving the latter place, at sea, the rate was found to be nearly 7·8s losing; whereas directly the cargo was disturbed in Calcutta, the rate gradually decreased, and that place was left with a daily rate of 6·5s losing, An instance is thus afforded of a chronometer having one rate before going into harbour, altering that rate while there, and returning to the previous rate after putting to sea again, variations which this method of rating detects and remedies.

On arriving in England the chronometer was placed in a maker's hands, for the first time since it fell, who, at my request, watched its rate for a week before putting it under repair: the first day it gave a rate of 6·5s, and then increased it to 10s losing at which rate it went steadily.

*Second.*—It makes the lunar observations and the chronometer of greater relative and positive value. The former ascertains the true longitude each fortnight; the latter keeps it truly and indicates it daily, and oftener if required, throughout the fortnight, until the lunar once more furnishes the exact longitude, and corrects any slight error which the chronometer may have made in the mean time.

*Thirdly.*—To the navigator who wishes to lay down the position of newly discovered rocks or shoals on his chart, it is calculated to give increased, if not absolute confidence in his chronometers, where more correct means cannot be resorted to.

*Fourthly.*—To the sailor whose chronometer has run down, or been injured when out of sight of land, it affords the only means of which I am aware for finding another original error and daily rate for that timekeeper.

*Lastly.*—It renders the seaman who has a good sextant and moderately good chronometer independent of all observatories. In rating by equal altitudes, or other sights to find the time at the place of observation, the usual methods with seamen, they require to know the longitude of that place by some extraneous means, before an *original error* can be determined for the chronometer; but by the suggested method, the original error is given with the daily rate.

The difficulty of measuring the angular distance will I am aware be urged by some as an objection to the method discussed, but this is a

difficulty which will easily be surmounted when once the utility of the practice is fully established. What it is proved possible to do, will soon be done, provided an adequate motive is supplied to stimulate exertion and reward perseverance. The inability to ensure obtaining lunar observations when most required, may have caused many to neglect the practice of taking them, but now that it is proved to be possible to rate chronometers by their aid, the value of them will be more generally appreciated, and good observers will be more abundant. I know some correct observers, who would I think apply this method with great advantage.

It remains for me to add a few remarks on the instrument and method of observation.

The sextant used was one of Cary's with blue glasses,—a colour I much prefer to red. The inverting telescope was so marked that it could be drawn out to precisely the same distance for each observation, and the wires were always in the same position, the socket of the telescope was also *always* screwed out to the same distance from the plane of the instrument.

In measuring the angular distance the same shade was *invariably* used for the sun, and the same two shades were as invariably employed for determining the index error of the instrument; which was generally done each day after the lunar distances had been observed.

In finding the index error I seldom measured the sun's semi-diameter within 3″ or 4″ of the truth. A *constant* error in the instrument, or method of observing does not in fact affect the rate of a chronometer, because both the sets for *rating* being taken on the same side of the moon, the constant error will affect them equally and in the same way.

In finding the original error of a chronometer, the process of meaning easterly and westerly lunars counteracts the effect of a *constant* error, because it affects the Greenwich time in opposite ways, and their mean will give a true result.

I am inclined to think that some observers are misled by making a sort of accommodation, or error allowance in the individual observations in order to make their sights mean well; this is sure to lead them wrong. I sometimes had a difference of only ten, at others of forty seconds in the distance, when the elapsed time between the sights was the same.

A curtain spread upon the deck, with the back against a skylight, and the elbow of the arm which held the instrument resting loosely on the knee, I found afforded the best position for observing.

---

## On the Ramsgate Tides of the Autumnal Quarter—1849.

*Royal Harbour, Ramsgate, January 9th,* 1850.

Sir.—In forwarding the Ramsgate tidal diagrams for the last, (or autumnal quarter,) I feel that they possess more than ordinary interest

to the mariner navigating the uncertain and fluctuating waters of the German Ocean, and Channel or Straits of Dover,—and I shall never cease to reiterate while able, a much closer attention to those good old guides, the deep-sea and hand lead, particularly the deep-sea lead with its arming, indicating the nature of the bottom, which if *kept regularly going* would save many a noble ship and gallant crew. I could give many proofs, but it would be painful to hold up to odium, the wrecked and ruined, whose sufferings are more than commensurate to their error in judgment; and till Courts of Enquiry are established, I fear there is little chance of awakening attention to this important subject.

A ship parts from her anchors and cables on the north shore entrance to the Thames, in a snow-storm,—clears the Long Sand and Knock and heaves to, in one of the late gales and high tides. The outset of the river must have been prodigious, as the captain by his drift supposed the ship would soon sight the land again, somewhere about the North Foreland, and at daylight made sail. He had, however, drifted without the stream of the Goodwin Sand; it was still thick with snow, and he came over the North Sand Head, in three fathoms water, with the sea breaking over his mastheads, and still standing on, lost her upon one of the inner shoals, himself and crew taking to their boat, being miraculously picked up at sea by another vessel. Such is the fact, and but one among numbers of similar occurrences continually presented to our notice, and taken from the statements of the parties themselves.

Great allowance is to be made for the weariness of a winter night, and over-weening confidence as to a ship's drift in a navigation to which these people are accustomed; but surely prudence would dictate a systematic reference to the lead, especially in the worst of all blind weather, a snow storm,—and the greater safety of lying by occasionally for a clear, and thus rendering it easy to obtain correct soundings, and proving the vessel's drift; nay, the velocity of an accelerated tide, and its proximate direction would be detected by the running out of the deep-sea line under such circumstances. Let us now observe the uncertainty of these tides, if their volume and consequent momentum is to be taken as a criterion.

In the diagram, September 28th to October 11th, the influence of the Equinox is slightly marked by its shifting gales, and the neaps are out of course as to time. To this succeeds a curious effect from October 11th to 24th, where are sixteen high-waters nearly upon the same level without a variation of six inches, such appearing to be the effect of southerly and easterly winds checking the tidal column in the German Ocean. And this effect is continued in the next diagram, as you will perceive, on October 24th and 25th, when the vertical rise was only eight feet, or one-third less than its usual volume.

November throughout exhibits remarkable oscillations, and on the day of full moon, the 30th, the ebb was so low, that one might have supposed the water to have quitted the narrow seas altogether. The low

ebbs continued into December, and on the first moon tide, the vertical fall was seventeen feet. Its velocity must have differed greatly from that of the 24th of October, with its eight feet fall in similar ratio, as to cause and effect.

We now come to the predicted and threatening tides of the last week in the year, and their principal feature with us was their unusual acceleration; the highest tide being at 10h. P.M. of the 27th; two days before the full, in lieu of the 31st, or two days after the full; and this was certainly alarming, to contemplate the sea toppling down the crests of our chalk cliffs, threatening with destruction our Coast Guard Station and Shipwrights'-yards, sweeping away our esplanade, and covering our landing platforms. To look at this, and imagine yet six or eight increasing tides, excited an apprehensive feeling. There was four feet more water than on average spring tides, or twenty-four feet by tide-gauge; and to our delight the following tide twenty-three feet only.

On the change there was only an average tide although the gales continued from the accelerating quarter! And on the 31st, when the tide should have been highest it was a foot below the average! And it is worthy of remark, that the vertical rise from low to high water nevertheless, was greater on this day than upon that of the highest tide, taking the morning and evening tides together, thus evincing, I opine, the planetary influences as predicted, there being so large a volume of water retained with us at low water! The curvature of the tidal column appears to have been highest in places nearly east and west of each other, as between ourselves and the Scheld, Yarmouth and the Maes, in Holland.

This may give rise to some interesting speculation, and my motive in being thus prolix, is to elicit such speculation, to enable my colleagues in the northern ports where they have a tidal-gauge to compare notes, and they will at all times receive from me as prompt attention as my official duties will allow. And, believing most implicitly, that much general information might be imparted to our brother mariners by such communications,

I am, &c.,

K. B. MARTIN, *Harbour-Master.*

---

## TURKISH FOR TARS.—No. II.—*By Mahmouz Effendi.*

(Continued from page 35.)

THE Turkish language spreads much farther in the east than is generally imagined by Europeans. Not only from the Danube to the Grecian Frontier; not only from the Adriatic to Mount Ararat; and not only from the Black Sea in the north down towards Bagdad in the south; but it is known and spoken at the Persian and Egyptian Courts; at Tunis and in other African Regencies; and in short, will carry a man even from Constantinople to China, which no other language on earth can effect.

Let it be remembered that I now speak of the Turkish language and not of the Arabic. The latter is, for colloquial purposes, not one tenth so useful as the Turkish. And it is much to be regretted, if but for that fact, that Arabic alone is taught at our Universities, aye, to the utter exclusion of Turkish. Thousands of Arabic and Persian words are of course incorporated with the Turkish tongue, just as Latin, Greek, French and other words, and Turkish words too, have found a place in the English. But still, Turkish springs not from Arabic or Persian. It comes from the Ouighour, a language of Central Asia, spoken by the early ancestors of the Turks; a language almost claiming a priority of antiquity to the Chinese.

Turk, a son of Japhet, the son of Noah, is said to have talked Ouighour, and even at this day Ouighour is one of the ten dialects into which Turkish is divided by philologists, while the Osmanli, another of the ten, is the dialect now spoken at Constantinople.

Napoleon when warring in the east, felt the immense importance of the Turkish tongue, and his endeavours to make it known in France are worthy of all praise. The English Government has yet to follow the Emperor's example. Lord Palmerston, taking a step in the right direction, has recently, I believe, granted two hundred pounds to Mr. Lane, towards the expense of printing an Anglo-Arabic Dictionary, and may still do more for Eastern tongues; but no Anglo-Turkish Dictionary has yet appeared, altho' it has been stated that Major Boyd, the author of the "Turkish Interpreter", has such a desideratum in preparation, and a second, we happen to know, was at least commenced by another gentleman in 1842. Whether either, or both of these, will soon see the light we have no ready means of ascertaining.

Now, till an Anglo-Turkish Lexicon appear, the most available work to Englishmen generally is the "Dictionnaire Turc-Français" and "Français-Turc," by Messrs. Kieffer and Bianchi, in four volumes. This is a work, which tho' somewhat expensive, every English man-of-war in the Levant, (especially surveying ships) ought to possess for the use of officers, and which might be provided at the Government charge.

I have long thought indeed that there should be an Admiralty fund to provide, not only charts for men-of-war (which is done); but also a *cabin library relative to the station whither such men-of-war are despatched.* As charts are now "drawn," so certain "books" should be "drawn"; and on a ship's coming home such books should be left on the station for her successor, or if brought home, be returned into store to be "re-drawn" by the ship relieving the one recalled. No man-of-war should be stationed on any coast without having on board dictionaries, vocabularies, and grammars of the languages spoken on that coast, in order that officers during their "watch below," might "read, mark, learn, and inwardly digest," much information from which they are at present to some extent debarred. For it is too much to expect that, sent as they are north, south, east, and west from early youth, they should from their own purses provide book after book, as from time to time

their stations might on short notice be changed. And other books than those on languages should be provided by the Government.

But reverting to our Turkish question, and to Kieffer and Bianchi's Dictionary, backed up, if not originated by Napoleon, it may be interesting briefly to record the unusual care with which this work was prepared and edited.

The sheets of Kieffer and Bianchi's Dictionary were prepared at Paris, and thence forwarded by the couriers of the Foreign office to the French Embassy at Constantinople, where they were corrected by Mons. Ruffin, Napoleon's *Chargé d'Affaires* in that capital. The work went bravely on till Bianchi, after the death of Kieffer, ultimately completed it. The first volume (*Turc-Français*) printed at Paris, did not, however, issue from the press till 1835, and the second came out in 1837. Then in 1845 appeared the first volume of the second part (the *Français-Turc,*) and in 1846 the second volume; so that the whole work consists of four volumes. It will however have a supplement.

"Knowledge is power," and those who bearing this in mind wish to learn Turkish thoroughly, may secure copies not only of Kieffer and Bianchi, but of Meninski, Es'ad Effendi, Prince Handjeri, Davids, Schroeder, Reid, and others. But "tars" have scarcely time for such severe study. By them a vocabulary is in very many, if not in most instances, voted all-sufficient; and as at page 34, I have in such a shape given an alphabetical table of exports and imports, in English and Turkish, I shall here as a next step proceed with a few naval terms, (with a few others in addition) for the benefit of blue-jackets, visiting the Turkish waters.

| *English.* | *Turkish.* |
|---|---|
| Admiral (Christian) | Amiral. |
| " (Turkish) | DonanmaKapoudani |
| To anchor | Demir atmak. |
| " | Demir brakmak. |
| " | Fonda itmek. |
| Anchor | Guèmi demiri. |
| " | Enguier. |
| " | Lenguer. |
| Arsenal | Tersaneh. |
| Bale | Pastav. |
| " | Pastal. |
| " | Pasta. |
| " | Denk. |
| Ballast | Istiv. |
| " | Saboura. |
| " | Safra. |
| Barrel | Varil. |
| Bilge | Sentinè. |
| Bill of exchange. | Politcha. |
| " health | Batenta. |
| " lading | Hamouleh-kaimèsi. |
| Boat | Kaik. |
| Bottom | Dib. |
| Bow or beak-head | Kaialik.* |
| Brig | Brik. |
| " | Ibrik. |
| Broker | Simsar. |
| Bucket | Bakradj. |
| Cable | Palamar. |
| " | Ghomèna. |
| Calm | Ilimanlik. |
| " | Meltem. |
| Cannon | Top. |
| Captain of the port. | Liman reisi. |
| Cargo | Guèmi-hamoulèsi. |
| Carpenter | Dulguer. |
| " | Marankoz. |
| Cask | Foutchi. |
| Chart | Kharti. |
| Coal | Keumur. |
| Compass | Bousola. |
| " | Pousla. |
| " | Kyblè-nameh. |
| To clarify | Dhorou itmek. |
| Commerce | Tidjaret. |
| Cooper | Foutchidji. |
| Corvette | Korveta. |
| Current | Akindi. |
| Custom-house | Gumruk-hanè. |
| Cutter | Kouter. |
| Deck | Kuverta. |
| Ebb and flood | Medd u djezr. |

* In French, èperon. A ship's prow is Guèminun-euni, (or Bashi.)

| *English.* | *Turkish.* |
|---|---|
| Eddy | Anafor. |
| Enemy | Dushmen. |
| Ensign or colours | Byrack. |
| " " | Sandjak. |
| To filter | Sizmek. |
| Filter | Suzgu. |
| " | Sizindi. |
| Fireship | Haraka. |
| Flag | Bandera. |
| Freight | Navloun. |
| Frigate | Firkata. |
| Grains | Sapkin. |
| Guard-boat | Koul-kaighy. |
| Gunpowder | Barout. |
| Gun wharf | Top-hana. |
| Harpoon | Kaptchak. |
| Helm | Dumen. |
| Helmsman | Dumenji. |
| Keg | Varildjik. |
| Knife | Bitchak. |
| Ladder | Miradj. |
| Lantern | Fener. |
| Latitude | Arz. |
| Lazaret | Lazareto. |
| Line-of-battle | Fylo. |
| Loadstone | Magnithys. |
| Longitude | Thoul. |
| Main-mast | Orta-direk. |
| Main-sail | Orta-yelken. |
| Main-yard | Orta-seren. |
| Man-of-war | Djenk-guemisi. |
| Marine | Galiounji. |
| Maritime | Denizlu. |
| Mast | Direck |
| Merchant-vessel | Bazirguian-guèmisi. |
| Mist or fog | Dhouman. |
| Musket | Toofenk. |
| Moon | Ai. |
| " | Mah. |
| Oar | Kurek. |
| Passport | Pasaporta. |
| " | Yol namè. |
| " | Yol emri. |
| " | Yol fermani. |
| " | Yol kiaghidy. |
| Pendant | Flandra. |
| " | Alev. |
| Pirate-vessel | Isbandid-guèmisi |

| *English.* | *Turkish.* |
|---|---|
| Pilot | Ab-shinas. |
| " | Koulaghouz. |
| Poop | Poupa, |
| " | Sukkian, |
| Pump | Pompa. |
| " | Touloumba. |
| Quarantine | Kourountina. |
| Raft | Sall. |
| Roadstead | Atchik-limani |
| Rudder | Dumen. |
| Sail | Yelken. |
| Salt meat | Touzlu-et. |
| Sand | Koum. |
| Schooner | Ghouletta. |
| Sea | Denyz. |
| Sea-biscuit | Peksimet. |
| Sea breeze (evening) | Embad. |
| Spyglass | Dourbin. |
| Squadron | Donanma. |
| Steamer | Vapor-guèmisi. |
| Stern | Kytch. |
| Storm | Fortouna. |
| To stow | Istiflèmek. |
| Stowing-machines | Istif alati. |
| Stroke oar | Hamladji. |
| Sun | Gunesh. |
| Sword | Shish. |
| Tariff | Tarifa. |
| Telegraph | Telegraf. |
| " | Dour-nuvis. |
| Thwart | Mangha. |
| Top | Kioulek. |
| To tow | Yedmek. |
| Tub | Shafoul. |
| Vessel | Guèmi. |
| Vessel or Sail | Tekneh. |
| To visit or search | Aramak. |
| To warp | Kalouma itmek. |
| Water | Su. |
| Whetstone | Bilegou. |
| To weigh | Lenguer-kaldurmak. |
| Whistle | Sipsi. |
| Wrapper of a bale | Sarghy. |
| Wreck | Guèmi-paralanmasi. |
| Wrecked | Guarik. |
| Yard | Seren. |
| " | Artenna. |
| Zone | Minthaka. |

### Winds.

| | |
|---|---|
| Wind | Yel. |
| " | Rouziguiar. |
| Sirocco wind | Saba yeli. |
| Cardinal winds | Bash yeller. |
| South-west | Kara yel. |
| North-west | Shirish yeli. |
| South-east | Keshishlèmè. |
| North-east | Poiraz. |
| North | Kish yeli. |
| East | Meshrik yeli. |
| West | Maghrib yeli. |
| South | Lodos yeli. |
| " | Djenoub. |
| " | Kyblè yeli. |
| Light | Lathyf yel. |
| Contrary | Moukhalif rouzguiar. |
| Favorable | Muvafik rouzguiar. |
| Gale | Keskin yel. |

The Turks have for some time exempted English yachts from port-dues; but no single word has yet been adopted in their language to express the word "yacht." And I may here, perhaps, incidentally remark that, England now possesses no less than *Seventeen Royal Yacht Clubs.*

The reader may perhaps ask "why not import the word 'yacht' as it stands into the Turkish tongue?" To this it must be answered that, in Turkish, words are written as they are pronounced; that they contain no letter which is not pronounced; and that the word "*yat*" happens to be already a Turkish word signifying (with or without the word "*yarak*" attached to it) "arms," as in the phrase "*zarb u def yat*", "arms defensive and offensive." Still, perhaps, it might (although we almost doubt it,) be pressed into the service to represent a "yacht", by the addition of the word "*guèmisi*"; as "*yat-guèmisi*," a "yacht-vessel." The word "box" as the immortal Mathews of Adelphi memory once showed, bears a score of meanings in English, and perhaps "*yat*" might therefore be used in the same elastic fashion in Turkish. Yet with "*yat*" the dictionaries give another word, viz, "*yatlu*" signifying a "miserable," a "malheureux", a term which will hardly describe a "fast" British yacht'sman, who nevertheless if his vessel *is* to be called a *yat-guèmisi*, must himself perforce answer to the word "*yatlu.*" There is really a difficulty on this head, we do not here pretend to solve it, but perhaps some of the Turkish Embassy will by-and-by at the Ambassador's splendid reunions in Bryanstone Square take it up and finally decide it. We happen to remember being at Smyrna in the winter dividing the years 1836-37, when the now Rajah, then Mr. Brooke's yacht *Royalist* was at anchor in the bay. Conversing with a Turk of the old school, we could not at all make him understand what a yacht was. He could not conceive how people could cruize about for mere pleasure. "Is the *Royalist* a *djenk guèmisi*, a war-vessel," he enquired? "No", I replied.—"A *bazirguian guèmisi*, a merchant-ship?" "Not at all" was my answer. "Does she not sell guns, or cheeses, or Bath bricks, or pen-knives, or something else of English manufacture?" I assured my friend that the vessels of the Royal Yacht Clubs had not the high honour to be permitted to engage in such interesting transactions. "God is great!" continued the Turk, "then may I ask whether the *Royalist* is one of the only other class I know of, a *Khirsyz-guèmisi*, a Pirate vessel? We hear much of such craft in these Levantine waters!" Of course I freed the destined Rajah's character from such an imputation, and his subsequent exploits on the coast of Borneo have, I think, sufficiently proved he has no sympathy in any country with those who not only "covet other men's goods", but as Leonidas said, though in another sense, actually "come and take them."

*(To be continued.)*

## Outline of the Voyage of H.M.S. Enterprize and Investigator to Barrow Strait *in search of Sir John Franklin.*

(Continued from page 19.)

The ice by the force of the wind had become much broken, and one of the ships quickly cleared it, and went rapidly ahead, leaving the man astern: the dingy being the boat most quickly lowered, with two hands in her was sent to pick him up, but after doing so was unable to regain the vessel; and on board it was impossible to turn the ship's head owing to the ice which surrounded her.

In this pitiable situation did these poor fellows remain for some hours, shivering by their boat on the ice, before we could get at them.

Towards evening the pack had opened considerably: sail was made, and the ships shoved through in the lanes which appeared most open, and by midnight we were again free. The next morning, Sunday, showing nothing of the pack, which had driven with the direction of the wind down the inlet.

The early part of the day was perfectly still, and young ice in all directions covered the sea. Towards evening a light breeze sprung up, and we were steering for Port Leopold, about twenty miles distant; but it was noon next day before we reached the entrance of the harbour owing to thick fogs and baffling winds under North-East Cape. We worked into the bay with a northerly wind and anchored at 2 P.M. in eight fathoms water, the bottom consisting of a black clay.

Its width at the entrance is less than a mile, with very deep water: the eastern shore being a narrow shelving beach projecting from under the bluff called North-East Cape. The western land, a continuation of the west shore of Prince Regent Inlet, is steep and very high: the head land was named Cape Seppings.

The bay in its formation is oblong; the east and west shores sloping from the hills on either side, which communicate with the promontories at its entrance, and extending to Barrow Strait, where they form the coast line. The north side or head of the harbour is a gravel beach, which stretches away to the water on the opposite side.

On the day after our arrival, six months provisions, half from each ship, were landed at Whaler Point, the name given to the spit at the mouth of the harbour.

The *Enterprize's* steam launch was hoisted out, and her machinery fitted, which in a day or so being completed, a very satisfactory trial of her was made; but she did not leave the harbour, for the young ice made every night, and without there appeared some heavy floes.

For some days we were most anxious to know if here we were to pass the winter; the ice several times formed over the bay, yet it broke up again with the first breeze; but on the 29th, our anxieties were put at rest by the ice being considered sufficiently hard to admit of cutting into our winter quarters, and preparations were made accordingly: The channel was marked off with pikes and with large saws worked by four

men, the ice within the included space was separated and cut into pieces 12 or 20 feet long, which were either floated past the ship or forced under the ice.

Much fun was caused by the novelty of the work, and the narrow escapes which the more daring had of getting a dip. We moved a mile higher up the bay in about 3 fathoms water, but had twice to shift a few yards astern of our first position, owing to there not being sufficient water for us with low tides.

The ships in a few days were firmly frozen in, and then the top-gallant masts were got down, the running rigging unrove, and the topsails and courses, which were allowed to remain on the yards, carefully wrapped over with tarpaulins. The boats at the davits were lowered, and placed together on the ice, where they soon became filled and entirely covered with snow; the steam launch was hoisted out, and the booms and every thing moveable on deck unstowed.

Under the hills on the east side of the bay was a large fresh water pond, formed by the melting of the snow on the hills; this was frozen very hard, and when the harbour was clear of young ice, and boats could land, hither a number of us resorted to slide and skate, but as soon as the snow began to fall this amusement was effectually prevented.

In the middle of October the winter awning was got up from below and fitted. Two large spars were raised fifteen or twenty feet from the deck, passing aft from the foremast to the mizenmast; over these were passed a number of whale lines, hove taut to the gunwale. The covering, which was of stout woollen stuff, was passed over this frame work and secured to the bulwarks, the curtain dropping down and being nailed inside, entirely preventing the admission of either wind or snow.

This was found a great comfort during the winter, affording an excellent walk when the weather was too inclement to venture outside.

On the 27th of October, William Coombes, of the carpenter's crew, died: he had been long wasting away and expired at noon this day. The disease I understood was in the brain, and contracted previous to his servitude in the *Investigator*.

He was buried on the afternoon of the 30th, a bleak and miserable day, snowing heavily throughout. All hands attended the funeral, a mournful duty at all times, but particularly so here where the wild prospect around us contributed so much to the melancholy of the occasion. A more affecting spectacle cannot be than to behold a number of men in mournful procession, walking through deep snow, and drawing after them a sledge bearing a coffin shrouded with the bright colours of Old England. The stoutest heart during such a solemn ceremony, and under these dismal circumstances, cannot but feel sensible that sooner or later its pulsation must also cease to beat.

The snow had fallen considerably in October, and the low temperature we had in the beginning of this month, together with the high winds, so completely hardened it, that men were now able to cut it with cutlasses into squares and shapes of any size. The deck of the *Investigator*

was covered with it, three feet deep, then well trodden down and gravel frozen on the top of it.

Against the ship's side as high as the bulwarks, snow was also banked up to the thickness of six feet, in a short time becoming as hard and solid as masonry. And twelve feet without this again, was built a wall six feet high, which, when the wind was high afforded a good shelter from the snow drift.

The snow in extreme cold climates is totally different in appearance when falling from that which we are accustomed to see in England; for instead of the large flakes we get at home, it falls in those regions in very minute particles, and with a strong breeze, is driven before it in clouds.

In case of fire a hole was kept free from ice close to the ship, in which was placed a tide-pole for registering the rise and fall of the sea. The crews of the ships, when other duties did not require them, were employed on calm days in erecting a strong wall between the ships, building observatories, and any like occupation which would afford them good exercise.

In the long dreary winter evenings to give the people something to do, and at the same time afford them instruction, a school was opened, the management of which at the desire of the captain I undertook. A desk was built the length of the lower deck, capable of seating thirty persons, and here each night, save Saturday and Sunday, I attended from six to eight, instructing them in writing, and cyphering; and it is due to my pupils to remark that a more attentive, obedient, and well behaved set of fellows no master could desire.

The officers were placed in five watches, each of four hours duration, in which every hour the one who had the charge was required to record on the Meteorological Journal the temperature of the air, the height of the barometer, and thermometer in the captain's cabin, and the depth of water given by the tide-pole; at the same time making note of every circumstance which might have occurred.

The quantity of fuel and lights to be expended was also regulated according to the following scale, viz:—Coals, 180 lbs. per day; candles, 14 lbs., oil 6 gallons, wood 50 lbs. per week.

The stove (named from its inventor "Sylvester,") for heating the ship was placed on the keel under the main hatchway, and adopted in both these vessels in preference to more recent inventions, having been used on all former Polar Expeditions, and ever found to answer perfectly, while it consumed but a small quantity of coals; a consideration of the first importance, in regions where the husbandry of the means of enduring the severities of the climate is so imperative.

A circular funnel conducted the smoke into a wide tube, which passed overhead along the lower deck to the fore hatchway, where it passed through the deck and so escaped. On this tube during the winter the people dried their clothes.

It was constructed to heat the air which passed along both sides of

the ship in metal tubes; in each cabin a narrow aperture emitting its warmth alongside the bed place, and raising the temperature in those nearest to it from 60° to 80°. In my cabin which was on the starboard side of the gun-room, it kept a pleasant heat, the thermometer ranging from 50° to 60°, and occasionally when the fire was brisk something higher.

It was a great comfort, for besides warming the ship throughout, it dried much of the moisture which at all times settled about the beams, bulkheads, &c., and in no part was it of greater benefit, than in the officer's cabins, where much vapour would collect overhead and on the shelves, which this greatly remedied; although some of the officers were much annoyed with the damp, and which no means they could adopt would altogether prevent, in fact so bad have I seen the sleeping apartments in the passage without the gun-room, that the wet was continually falling in large drops, making the place truly uncomfortable.

Luckily for me I was never in so deplorable a plight, and felt little inconvenience when compared to the discomfort it occasioned others. This stove was now lighted every day; before it had only been used occasionally to keep the holds dry.

Traps made of empty casks, were set to catch the foxes, which had become very numerous, and by hunger made very daring; so much so, that at night they would be constantly coming on board over the stern. Several were shot from the ship, but a prohibition was issued against killing them, it being the desire to capture the little animals alive, in order that a copper collar might be fastened about the neck of each, having on it, punched in large legible characters, the ship's name, position and date, with the occasion of our being here, in the hope that Sir John Franklin, or some of his people, might in this ingenious manner be apprised of assistance.

As many as fifty were caught, and set loose in this way up to the end of December.

Most of the Arctic foxes are perfectly white, but we caught one or two of a dirty brown colour; they are smaller than the English fox, but in other respects much similar. When taking them from the trap caution was required, and quickness in seizing hold of them, for they were very fierce, and bite uncommonly hard.

Their fur is soft and thick; during the winter the coat being in far finer condition than at other times. Some of these poor little creatures, had when ensnared, lapped the iron grating of the trap, and so intense was then the cold, that a great portion of the tongue was found completely gone, and they were brought on board besmeared with blood. All such as were discovered in this painful state, of course were killed and preserved as specimens.

We had one on board throughout the winter chained to a cask, but it preferred burrowing in the snow to occupying its kennel, and passed the winter mostly under its surface. It eat but little, and when not hungry would take the meat offered and bury it. He was a gentleman fox, and

named "Toby", but unfortunately after having had him many months he effected his escape, taking with him a quantity of the line with which he was made fast; so that it is to be feared poor "Toby" did not long survive his freedom.

On the 21st Nov. another present of clothing was given gratuitously to all hands; comprising one pair of seal skin gloves, one pair of cork-soled boots, and one three, point woollen blanket. All these things were admirable gifts in this rigorous climate: the boots most excellent, and the warmest thing of the kind in the Expedition.

In the first watch, on the 12th Dec., some mercury being exposed in a wooden trough froze, with the thermometer standing at the time at 47½°. I was walking round the ship at the time, and my attention was called to notice it. In appearance it resembled small globules of melted lead, and when freezing appeared to be separated and in numerous small particles.

Owing to many of the thermometers widely differing as the temperature became very low, two comparisons were made, one in Nov., the other in Dec., in order to determine their correctness. The result of these trials I have inserted, as it shows the inaccuracy of these instruments in very cold weather. They were exposed on the ice for one hour and a half, and ranged as underneath *below* zero.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1st Trial. | Nov. | Mercury | 18° | 19° | 21° | 21° | 22° | 23° |
| | | Spirit | 18 | 20 | 23 | 23 | 27 | 35 |

2nd Trial. 13th Dec., temperature very low, five thermometers compared at 5 P.M. 47°, 52°, 53°, 59°, 72°.

On the latter date the contents of a mercury bottle belonging to an artificial horizon, being emptied into an iron trough froze in 42 minutes, the temperature by the deck thermometer being 52°.

In the process of freezing, it formed into chrystals at the bottom, and was two and a half hours before it was perfectly solid.

Christmas-Day was observed on board the ships by prayers being read; and the issue of an additional allowance of provisions and grog; Jack getting very merry as is his custom on such occasions. The Captain, Engineer, and Warrant Officers dined as is usual in the Gun-Room.

New Year's Day was allowed to be a holiday to the people, and an extra allowance of good things was given them as on Christmas-Day.

The Officers from the berth and Gun-Room dined in the Cabin: The fare was most excellent, but most of the party dined from off a roast shoulder of mutton, which was certainly delicious, having lost none of its flavour or juiciness from exposure to the frost. The fact of eleven persons dining principally from this one joint, evinces that our appetites had not increased with the rigour of the climate. All hands adjourned to the Gun-Room, where with singing, laughing, talking, &c., the time flew past most pleasantly to a late hour.

The Aurora Borealis had shown itself frequently, but never in such splendour as I had expected to see it. It usually appeared in the south-east, extending in an arch across the heavens and resting in the westward.

In colour it was of a light yellowish tinge, its brightness becoming fainter towards the edges which seemed on gazing at it intently, to be of a pinkish hue; moving with a rapid flitting motion, and emitting in its passage brilliant flashes of light.

At other times it much resembled white fleecy vapour vibrating from one position to another and suddenly disappearing.

The thickness of the ice was twice ascertained this month; on the latter occasion in the centre of the bay, where, after removing the snow from its surface, it was found to be three feet three inches through.

For many days towards the close of the month, the sky presented a very singular but truly beautiful appearance.

Along the northern horizon some two or three degrees high, it assumed a dark blue or rather lead colour, and then blended into a moroon or brick red; the colours becoming gradually fainter as they spread upwards. This was only seen about noon, when the sun was only a few degrees below the horizon, disappearing again as he receded.

At night when all was still on board, a smart noise similar to the report of a pistol would frequently be heard to proceed from the ship's sides, being it was supposed the creaking of the timbers occasioned by the frost.

On the 1st February, another liberal supply of clothing was given to the crew of both ships; with the exception of the boots and caps, similar to that presented us on the Queen's birthday last year.

The sun's upper limb was to day refracted half a degree above the horizon, after an absence of eighty-five days, the last glimpse of him having been observed on the 9th November.

His presence was hailed by all with joy, for his return besides announcing the approach of a more congenial season, led us to anticipate a more enlivening prospect than the black and wintry scene we had so long been accustomed to behold.

For sixteen days in February it blew most violently, from north and south, alternately, without cessation: being noted in the log-book for many successive days as a storm. No work could possibly be done outside the ship. The drift was tremendous, being carried over the mast-heads, and so thick that the *Enterprize*, distant only 200 yards, was altogether imperceptible.

This continued gale collected an enormous mass of snow about the ship, and so great had become the additional weight, with the embankment around her, that the ice in many places had sunk considerably and was overflowed.

It being dreaded that the ice in thus sinking, would also bear down the ship; it was deemed necessary to remove the wall embankment, and level the snow in the neighbourhood, to prevent her from grounding; and this tiresome occupation lasted some days, the men working very hard until it was all pulled down and conveyed to a distance on sledges.

Holes being again bored in the ice this month, it was found to have increased in thickness nearly two feet. An attempt was made to blast it with gunpowder, and a bottle containing about half a pound was placed in a hole four or five feet down, filled in with snow, and allowed to freeze

firmly over. On the explosion taking place it was found that the effect had been but trifling, and had removed little from above.

It is supposed that the elasticity of the ice is too considerable for gunpowder to cause any great displacement of it.

A quantity of snow fell about this time, but in such small particles as scarcely to be discernable unless falling thickly, when the sky was obscured, and a hazy mist seemed to hang about. In walking, this rendered the sight very imperfect, and from the irregularity of the surface occasioned one to stumble and fall repeatedly.

On Sunday the 25th, a grouse was seen; being the first of the feathered tribe observed, with the exception of two ravens, since the autumn; and on the 2nd March two flew past the ship, of which one was shot; but although some of the sportsmen, in spite of cold, were very persevering in quest of game, they were not fortunate enough to kill any more, nor were any seen during the season.

The heavy gales, of which we had so many during the winter, blew nearly up and down the harbour or north and south; and I noticed that as the wind increased the thermometer invariably rose; so much so indeed, that the early part of this month it rose to +4, inducing us to suppose that the severe cold was now past; but in this we had calculated too hastily, for as the breeze subsided the thermometer rapidly receded.

The barometer I don't believe indicates any immediate change in the state of the weather, for I have occasionally observed it registered during twenty-four hours as ranging between 30·115 and ·326, and at the very time blowing heavily and dirty weather; and again, with it standing much lower for several continuous days it has been fine, perfectly clear, and with little wind.

*Mean of Meteorological Journal of H.M.S. Investigator for months of*

| Time. | Temp. of Air. | | | Temp. Lower Deck. | Barometer, | | |
|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | | Max. | Min. | Mean. |
| 1848. | | | | | | | |
| June ..... | 60 | 32 | 42 | ... | 30·308 | 29·491 | 29·936 |
| July ..... | 60 | 33 | 43 | ... | 30 202 | 29·571 | 29·890 |
| August ..... | 49 | 25 | 35 | ... | 30·123 | 29·189 | 29·678 |
| September..... | 25 | 3 | 23 | ... | 30·103 | 29·331 | 29·779 |
| October..... | +31 | —10 | + 9 | ... | 30·412 | 29·372 | 29·873 |
| November..... | +15 | —33 | —13 | 61 | 30·285 | 29·360 | 29·881 |
| December ..... | —14 | —50 | —34 | 48 | 30·365 | 29·132 | 29·733 |
| 1849. | | | | | | | |
| January..... | —13 | —43 | —32 | 47 | 30·450 | 29·365 | 29·852 |
| February ..... | —18 | —52 | —37 | 52 | 30·581 | 29·990 | 29·858 |
| March ..... | +4 | —42 | —22 | 51 | 30·441 | 29·428 | 29·938 |
| April..... | +7 | —29 | —10 | 49 | 30·543 | 29·392 | 29·987 |
| May ..... | +42 | —11 | +16 | 51 | 30·365 | 29·707 | 30·017 |
| June ..... | 51 | 11 | 32 | 50 | 30·184 | 29·521 | 29·870 |
| July ..... | 44 | 31 | 36 | 48 | 30·099 | 29·243 | 29·710 |
| August ..... | 42 | 26 | 33 | 48 | 29·978 | 29·242 | 29·738 |
| September..... | 34 | 5 | 22 | 29 | 30·374 | 29·022 | 29·990 |

March 17th.—To-day we were gratified to observe the sun had gained sufficient influence at noon to raise a thermometer placed at a distance from any object that would attract his heat to +17: thawing a little of the snow collected on the stern of the *Investigator*, and causing the slightest trickling of water. On the 20th, a yard of green crape was issued to each officer, and a third of that quantity to the men, to make veils, to protect their eyes from the glare of the light reflected from the snow, which was becoming very troublesome.

The cold in the first part of this month was severely felt by us all; and though the thermometer never indicated less than 40° below zero, which was 20° higher than it had been in January; yet its effects on us were more acute than it had been at that time. In fact on the least exposure in any wind the pain was most severe. The fact of eighteen men while at work having been frost-bitten in one day, may convey some idea of the keenness of the atmosphere, far better than I can describe its agonizing effects.

Two depots of provisions with fuel, cooking apparatus, tents, &c., were conveyed in sledges by the people over the ice to the distance of four or five miles. The first on the 16th being left under Cape Clarence, and that on the 24th, near Cape Seppings, where till the weather becomes milder they remain; when it is intended pushing them on to the southward (down Prince Regent Inlet) and westward, in the hope of their affording relief to the people we are seeking.

On Sunday evening, after dinner, I was strolling about the harbour alone, when I fancied a visit to the beacon which had been erected (at Whaler Point) within the last few days.

As near as possible it was 6 o'clock, and the sun just declining behind the western hills. On ascending the steep beach from the ice, I had but a few yards to advance before I reached the signal station; where the first object that met my sight was an enormous bear, stretching out at full length within 140 yards of where I was standing, and from the nature of the ice apparently much closer.

We seemed to notice each other with due respect at the same instant, and the huge brute instantly starting up, my first impulse was to run; but where to flee for safety I knew not, for I was perfectly defenceless, and two miles at least distant from any assistance. I betook myself however to the nearest boarding pike, as hastily as the soft snow, and my own trepidation would allow, with the determination of opposing "my friend" as well as I could, fully expecting to find him at my heels. As may be supposed, my embarrassment was considerably lessened on finding I was not pursued: for on pulling the pike I had come to from the snow, I found it had no spike at its end. In this dilemma I hastened as quickly as possible to the next, and so on till I had a good start, when I had the satisfaction of perceiving Mr. Bruin, come from under the point, and leisurely strike off down the inlet. So we parted very amicably.

Having returned on board and given an account of my adventure, one

of my messmates, at my request, returned with me to the spot, and soon found out where he had been lying from the deep hole which the warmth of the body had made in the snow. The impression of his paw, which was very perfect, measured twelve inches long, by ten broad; and from the distance apart between the fore and hind paws, he must have been very large, as the footmarks alone would indicate.

We had sufficient light at the close of March, to enable us to see distinctly till after 9 o'clock; and although the thermometer is near zero, it seems surprising no doubt, but the air feels mild and pleasant, after the intense cold of winter.

The following table shewing the comparative serenity of three winters in the Arctic Regions, has been communicated to us by John Barrow, Esq.

| Port Leopold.—1848–9. Latitude 73° 52′ N. Longitude 90° 32′ W. | | | | | | | | | Melville Island 1819–20. Lat. 74° 47′ N. | | | Port Bowen. 1824–5. Lat. 73° 14′ N. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month. | Temperature. | | | Barometer. | | | Temp. Lower Deck. | Force Wind. | Temperature. | | | Temperature. | | |
| | Max. | Min. | Mean | Max. | Min. | Mean. | | | Max. | Min. | Mean | Max. | Min. | Mean |
| 1848. | + | + | + | | | | | | + | — | + | + | + | + |
| Sept. ... | 37· | 6· | 23·2 | 30·118 | 29·276 | 29·772 | 48·9 | 3·5 | 37 | 1 | 22·5 | 34 | 16 | 25·9 |
| October | 32 | 12·3 | 10 | ·432 | ·322 | ·874 | 51· | 3·4 | 17·5 | 29·3 | 4·9 | 31·5 | 12 | 10·8 |
| Nov. ... | 16 | 33·7 | 12·8 | ·308 | ·318 | ·889 | 57·4 | 3·1 | 6· | 52 | 22 | 17 | 26 | 5 |
| Dcember | 12·3 | 47·5 | 32·5 | ·408 | ·077 | ·772 | 54·6 | 2·65 | 6· | 48 | 22·2 | 4·5 | 35 | 19 |
| 1849. | | | | | | | | | | | | | | |
| January | 8·6 | 45 | 31·8 | ·480 | ·316 | ·852 | 52·7 | 2·8 | 0· | 52 | 32·4 | 14·5 | 42·5 | 28·9 |
| Feb..... | 15·3 | 53 | 31·3 | ·640 | 28·909 | ·854 | 52·9 | 3·4 | 18·4 | 55 | 34·9 | 8· | 45· | 27·3 |
| March... | + 8 | 45·5 | 19·4 | ·500 | 29·381 | ·945 | 54 | 3·1 | + 6· | 43·9 | 19·5 | + 9· | 47·3 | 28·4 |
| April ... | 7 | 29·4 | 10·1 | ·584 | ·357 | 30·000 | 51·5 | 2·8 | 32 | 34·7 | 9·9 | + 20 | 37· | 6·5 |
| May..... | 42 | 8·6 | + 16·4 | ·403 | ·690 | ·035 | 53·6 | 2 6 | 47 | 5·5 | + 16·7 | 39 | 7·5 | + 17·6 |
| June ... | 54 | + 11·5 | 31·7 | ·198 | ·480 | 29·976 | 53·4 | 2·76 | 51 | + 28 | 36·2 | 47 | + 23 | 36·1 |
| July..... | 43 | 31·5 | 36 | ·134 | ·200 | ·708 | 53·6 | 2·7 | 60 | 32 | 42·4 | 50 | 30 | 37·3 |
| August | 42 | 27 | 33·7 | 29·95 | ·187 | ·714 | 54·1 | 2·4 | 45 | 22 | 32·7 | 51 | 25 | 35·8 |

(*To be Continued.*)

ARCTIC EXPEDITION.— *Proceedings of Captain Kellett and Commander Moore to October* 1849.

The departure of the *Enterprize* and *Investigator* under command of Capt. R. Collinson, C.B., for Behring Strait and the recent arrival of despatches from Capt. Kellett, relating his proceedings in the Arctic Sea, northward of that Strait, have again revived the painfully interesting subject of the absent expedition under Sir John Franklin. We proceed to record the first in the following extract from a local paper.

"The Arctic discovery ships left Woolwich* on the 10th January. Stores of all descriptions, implements of every kind suited to the latitude, cases of presents for the Esquimaux Indians, gunpowder, sugar, tea, rum, and all other essentials against the effects of intense cold and hunger, had been poured in abundance on board the vessels. All things being in readiness at an early hour on Thursday morning, the *Enterprize*, Captain Collinson, C.B., and the *Investigator*, Commander M'Clure, slipped from their moorings about nine o'clock. The scene was a most imposing one, thousands witnessed it, and many shed tears. The *Monkey* steam-tug took the *Enterprize* in tow, and the *Investigator* was taken in tow by the *Lightning* steam yacht. As the vessels were leaving, the band of the dockyard battalion struck up the "National Anthem," followed by "Hearts of Oak, Rule Britannia, the Girl I left behind me, Should auld acquaintance," &c. As the discovery ships passed the *Fisgard*, the latter dipped her colours as the signal of farewell, which was followed by a similar mute but expressive adieu from the departing vessels. Then rose a cheer, loud as 1800 voices could give utterance to—another and another, and the echoes died over the waters of Old Father Thames as the *Enterprize* and *Investigator* floated down the stream."

After a slight detention at Devonport for some important stores, the ships sailed on their interesting voyage, anxious to execute the important duty which lies before them.

No sooner are they sailed than we receive interesting accounts of the proceedings of Capt. Kellett in the *Herald* in company with the *Plover* Com. Moore, who notwithstanding they have failed in succouring Sir John Franklin have penetrated further into the Arctic Sea northward of Behring Strait than any former navigator.

* The officers of the *Enterprize* are *Captain* R. Collinson, C.B.; *Lieutenants* G. A. Phare, John J. Barnard, and Charles T. Jago (in lieu of a mate); *Second-Master* Francis Skead; *Clerk-in-Charge* Edward Whitehead; *Mates* Richard T. L. Legg and Murray T. Parks (in lieu of an engineer); *Surgeon* Robert Anderson; *Assistant-Surgeon* Edward Adams; *Boatswain* James Woodward; *Carpenter* William Waldron. The officers of the *Investigator* are *Commander* R. J. L. McClure; *Lieutenants* William H. Haswell and Samuel G. Cresswell; *Second-Master* Stephen Court; *Clerk-in-Charge* Joseph C. Paine; *Mates* Henry H. Sainsbury and Robert J. Wynniatt; *Surgeon* Alexander Armstrong, M.D.; *Assistant-Surgeon* Henry Piers; *Boatswain* Edward Rundle; *Carpenter* George J. Fords.

The following is Capt. Kellett's account of his proceedings.—

*Her Majesty's Ship Herald, Nov. 22nd*, 1849.

*Received Jan. 22nd.*

On the 15th of July the ships reached the anchorage off Chamisso Island,* having run in fifty hours from the west end of St. Lawrence Island.

The Captain's report continues:—Before my arrival two boats had been despatched for the Mackenzie river, under the command of Lieut. Lee; fortunately the *Herald* hove in sight before it was too late to signalize to them; the boat's crew saw the recall, and returned.

We commenced immediately on our arrival to coal and provision the *Plover*, and by 9h. A.M. she had on board all the bread she could stow, half her coals, and a proportion of other provisions.

July 16th.—We were occupied in stowing the *Plover's* provisions and coals, removing officers, discharging objectionable men, and filling up their vacancies from our own complement. While this was going on, I went with Com. Moore and his acting ice-master, to examine the different bays on the east side of Choris Peninsula for a wintering station for the *Plover*. We found very shoal water in all of them, shoaling gradually northerly towards the sandy peninsula. They were of opinion that if a vessel did winter there, she would be greatly exposed, and, probably, on the breaking up of the ice, be either carried into the straits or shoved up on to the beach.

At 9h. P.M. both ships were ready to sail, but our main cap having been reported very rotten, I was detained the next day (17th) to shift it. On each day of our stay we were visited by two baidars, carrying twelve men each, all of them were particularly tall, well built, well armed, and without either their women or dogs.

At first they were rather shy, but as soon as the interpreter began to speak to them in their language, that is, in a dialect which some of them understood; they appeared delighted, came on board, looked all over the ship, and returned (after I had made each of them some trifling present) without attempting to pilfer anything.

They belonged to Spafareif Inlet, and expressed their delight at meeting with, and being recognised by, Lieut. Cooper, and others who had visited them at their place last year, making presents to them without seeking a return.

Com. Moore and myself accompanied them to Chamisso Island, where, after hauling up their baidars, canting them bottom to the wind, the weather gunwale resting on the sand, the other raised about three feet, and supported by paddles, the space underneath covered with furs: we partook of several pipes with them.

Whilst we were engaged with our pipes Commander Moore employed his boat's crew in digging for the flour left by Captain Beechey twenty-three years before, in a position indicated by directions on a rock, which were as perfect as the day when cut. We found this rock last year, but

*At the bottom of Kotzebue Sound.

supposing the flour to have been removed by the natives, did not dig for it. A considerable space was cleared round the cask, its chimes freed, only adhering to the sand by the two lower bilge staves, yet still it required the united strength of two boats' crews, with a parbuckle and a large spar as a lever, to free it altogether. The sand was frozen so hard that it emitted sparks with every blow of the pickaxe. The cask itself was perfectly sound, and the hoops good: out of the 336lbs. of flour which it contained, 175lbs. were as sweet and well-tasted as any we had on board. The tin of beads was also found; those not of glass much decayed; the cotton stringing quite sound.

July 18th.—At 6 A.M. we weighed, with a S.W. wind, and stood out of the anchorage.

July 20th.—At 5 P.M we anchored in 15 fathoms, with Cape Lisburne bearing N. 70° 20′ E. mag., distant two miles and a half: *Plover* and yacht in company.

From this position two whale-boats were dispatched to examine the coast northerly, under the orders of Lieutenant Pullen (*Plover*,) and Mr. Parsons, second-master (*Herald*). A boat was also sent from the *Plover* a short distance to the southward. The *Plover's* boat returned soon after midnight, having landed in one or two places, and met with many natives, who were friendly and well disposed. A beautiful clear night. At midnight the sun showed its semi-diameter above the horizon, and nearly every person in the ship remained up to witness this phenomenon for their first time.

July 21st.—Weighed again at midnight, with a light northerly wind; the boats hove in sight at 7h. A.M. At 10h. they were alongside.

Mr. Pullen had examined the inlet to the eastward of the Cape without success. He was informed by the natives, through the interpreter, that none of the inlets on the coast would admit of a vessel entering them; that it was only a few of them, at the early spring, their baidars could enter; and they were closed when the winds began to blow from the westward.

We experienced in the ship until 6 P.M. of the 23rd a tedious calm: the current fortunately set us north, half a mile per hour. During this time we were visited by two baidars, with the same party of natives we had seen off Cape Lisburne; they came alongside fearlessly, and disposed of every article they had; the women selling their fur dresses (even to their second pair of breeches) for tobacco and beads.

During the evening of the 23rd and the morning of the 24th, we were running to the N.E., with a moderate S.S.W. wind and a thick fog, clearing at intervals for a short time. Walruses, whales, and flocks of the eider duck about. We were guided as to our approach to the ice by the temperature of the sea.

July 25th, A.M.—The wind shifted to the N.W.; brought with it cold but fine and clear weather; steering for Wainwright Inlet, the vast number of walruses that surrounded us keeping up a continual bellowing or grunting. The barking of the innumerable seals, the small

whales, and the immense flocks of ducks continually rising from the water as we neared them, warned us of our approach to the ice, although the temperature was still high. We made the land a little before noon, ten miles to the northward of Wainwright Inlet. At 2 P.M. we anchored in 11 fathoms, about three miles off its entrance. The *Plover* and yacht had done so about an hour before.

In running down along the coast a post was observed on the higher land, near the entrance of the inlet; shortly afterwards a man was seen to hoist on it (what we most of us made out to be) a flag. The *Plover* soon afterwards dipped her ensign (simply to clear it as we afterwards learned); this was answered by the person at the post doing the same, and entirely removing it.

I immediately lowered a boat, and sent Lieutenant Cooper of this ship, to the shore. He walked up to the post, and found it to be nothing more than a native mark for a quantity of blubber and reindeer flesh he discovered buried there. The native had left. Lieutenant Cooper after remaining there some time returned on board without seeing anybody. My reason for selecting this place to equip and despatch the boats from, instead of proceeding as far north as the ships should go was, that I condered it of the greatest importance that the *Plover's* wintering station should be known by the officer in command of the boat expedition.

Commenced immediately to hoist out the boats, equip, and provision them. While this was going on I despatched Mr. Hill, master of this ship, to sound the entrance of the inlet. He returned on board a little before midnight, and made to me the following report:—That the channel was very narrow and winding; that nine feet was the most water that could with certainty be carried in, and that even to ensure that depth the channel would require close buoying; that a fair wind, or a calm, so that a vessel might either sail or be towed in, was necessary, the channel being too narrow and intricate to warp through. Once in, he reported that there is a sufficiency of water and a convenient spot for the *Plover* to winter.

From this report I found that it was impossible for the *Plover* to enter this inlet with the water found there, but as the entrance was encumbered with some heavy pieces of ice aground, which during our stay were breaking up fast, I conceived it very probable that after they had disappeared the channel might become more direct and deeper. I therefore determined to return, and make a closer examination of the inlet as soon as I had seen the boats as far north as we could reach in the ships. The boats were therefore directed to visit Wainwright Inlet on their return, in case it should prove practicable for the *Plover* to enter, but that, under any circumstances, she would be found at Chamisso Island.

Mr. Hill met there about forty natives, who were very friendly at first, but when they found he was about to leave them they became annoying, pulling their baidars across his bows, and fouling his oars, not with any hostile intentions, but simply to delay his departure, so that they might have time to barter with him for some of his riches.

By midnight the boats were all ready, and shoved off under three hearty cheers from the ships, which were as heartily returned by the boats. This little expedition consisted of twenty-five persons, and four boats, as follows :—Lieutenant Pullen, commanding the *Herald's* 30-foot pinnace, fitted on board with the greatest care, thoroughly decked, schooner-rigged, and called the "*Owen*", furnished with pumps, spare rudder, and a strengthening piece of two inch plank above her water line. Two 27-foot whale boats, new boats, brought out by H.M. ship *Asia*, from England, covered in abaft as far as the backboard, but without either boxes or cases, the provisions being stowed, the bread in painted bags, and the preserved meats between tarpaulins. The men's clothes were in haversacks, capable of removal in a moment. *Plover's* pinnace, a half-decked boat, with cases for her provisions, &c., so placed as to resist pressure from the ice. There were placed in the boats seventy day's of preserved meats for the whole party; all the other articles of provisions except bread, to the same extent, being also soldered up in tins. In addition to these, the *Owen* had on board eight men's allowance of the regular ship's provisions. After she was stowed with this proportion, every corner that would hold a case of preserved meats was filled. The two larger boats carried in lack of them five cases of pemmican for the special use of Sir John Franklin's party. The ships wayed in company with the boats, and ran along the land within about three miles, with a moderate off shore wind.

July 26th.—At 4h. A.M. the ice could be seen in heavy masses, extending from the shore near the Sea Horse Islands. At 6h. we were obliged to heave to in consequence of a dense fog: this cleared off at 11h. 30m. The *Plover* was close to, but neither the boats nor the yacht were in sight.

We both made sail, steering true north, and were at 1 P.M. in lat. 71° 5′, where we made the heavily-packed ice, extending as nearly as far as the eye could reach from N.W.b.W. to N.E. At this time we had soundings in 40 fathoms mud—the deepest water we have had since leaving the Island of St. Lawrence. We continued running along the pack until 8 P.M., when, a thick fog coming on, we ran two or three miles south, and hove to, wind blowing from N.N.E., and directly off the ice. We had run along it thirty miles.

The pack was composed of a dirty-coloured ice, not more than 5 or 6 feet high, except some pinnacles deeply seated in the pack, which had no doubt been thrown up by the floes coming in contact. Every few miles the ice streamed off from the pack, through which the *Plover* sailed.

July 29th,—At 1h. 30m. the fog cleared off; the pack from N.N.W. to N.N.E., distant about six miles. Made sail during the forenoon, running through streams of loose ice. At 10h. passed some large and heavy floes. Commander Moore considering them sufficiently heavy and extensive to obtain a suite of magnetical observations, dropped the *Plover* through between them, and made fast with the ice anchors under the lee of the largest in a most seamanlike manner.

I landed on the floe, with Lieutenant Trollope. The latitude, time, and variation were obtained on it (lat. 71° 30′ N., long. 162° 5′ W.); but the other observations were vitiated by its motion in azimuth, and by its constant breaking away, the level would not stand. We had 28 fathoms mud alongside it and no current.

I found the ice driving slowly to the southward, with the N.N.E. wind then blowing fresh. Very few walrus and but a single diver seen. The general height of this floe was 5 feet, and about one mile in extent; on it were found pebbles and mud, which led Commander Moore to suppose that it had been in contact with the land. I supposed the mud and pebbles to have been fecal remains dropped there by some walrus.

At 3 P.M. the *Plover* slipped from the ice, and both ships, with a N.E. wind, made sail westerly until 6 o'clock, when we hauled up true north, having no ice in sight in that direction, and only from the mast-head on the weather beam. A fine clear night,—running along six and seven knots; temperature of the water 40°; depth 21 fathoms (increasing).

At midnight the latitude was obtained by the inferior passage of the sun. At 5 A.M. the temperature of the water had fallen to 36°, and almost at the same instant the ice was reported from the masthead. Between this time and 7 A.M. (when we hove to within half a mile of the pack) we ran 10·5, so that I consider eleven miles to be about the distance that pack ice can be seen in clear weather from a ship's mast-head.

The pack was of dirty-coloured ice, showing an outline without a break in it five or six feet high, with columns and pinnacles much higher some distance in. Although the wind was off the pack, there was not a particle of loose or drift ice from it; our soundings had gradually increased to 35 fathoms, soft blue mud. The only living things seen were a pair of small divers, black, with a white ball in the back, and two very remarkable birds very much like the female of the tropical man-of-war bird—a dingy black colour with excessively long wings, and the same flight when soaring. We could not succeed in shooting any of either species. We remained hove to off the pack for an hour. The temperature of the sea near the pack at every 5 fathoms was as shown in the margin. In the dredge we got muscles, and a few bivalves common to these seas.

This was our most northern position, lat. 72° 51′ N., 168° W. The ice, as far as it could be seen from the masthead, trended away W.S.W. (by compass), Com. Moore and the ice-master reporting a water sky to the north of the pack, and a strong iceblink to the south-west.

It was impossible to gain this reported open water, as the pack was impenetrable. The pack we had just traced for 40 leagues, made in a series of steps westerly and northerly; the westerly being about ten or twelve miles, and the northerly twenty. We made sail at 9 o'clock A.M., steering for the coast a little to the westward of our track up; wind north-east gradually decreasing as we got southerly.

5 o'clock A.M.—Fell a dead calm, the sea glassy smooth, and so transparent that a white plate was distinctly seen at a depth of 80 feet.

This afforded me an opportunity of ascertaining the extent of damage the ship had received when on shore in Awatska Bay. The forefoot was untouched, the false keel gone for about ten feet, beyond this she had sustained no damage that we could see: the copper broken and excessively thin all over. As we approached the coast we again met numbers of whales, walrus, seals, and flights of ducks and sea birds.

July 30th, 8 o'clock, A.M.—Packed in shore in eight fathoms, close to the northward of Blossom shoals. Com. Moore came on board and proposed that, during the time I was surveying Wainwright Inlet, he should go along the coast during the fine weather as far north as the ice would permit him, and endeavour to communicate with the larger boats, which we expected were somewhere about Refuge Inlet. With this intention we both started with a fine but adverse wind from north-east.

I worked on short tacks, close along shore, the soundings in muddy bottom decreasing and increasing as we approached or receded from the land. Shortly after 6 o'clock A.M. we again anchored off the entrance of Wainwright Inlet.

Not a particle of the ice seen on our former visit remained. We had not long anchored when we observed the natives carrying their baidars across the narrow neck between the inlet and the sea, and launching them. Wishing to get as many of them as I could off to the ship, so as to have fewer to molest me on shore, I detained the boats until two of them came alongside. They approached us slowly, frequently resting on their paddles, the bowman each time invariably holding up his hands over his head at an angle of forty-five degrees, when lowering passing them over his breast and stomach. I made the boatswain do the same from the forecastle netting. They also always waited for his answer before they recommenced paddling.

I made them each a present of some tobacco and beads which they could hardly understand that I intended to give without return. I left the ship with three boats, for the examination of the inlet, and gave permission to the ship's company to trade with the natives for whatever they had to dispose of, consisting mostly of small figures and tools of ivory, bows, arrows, a few furs, sealskin boots, and pieces of reindeers' flesh. I had not been long on shore before these natives left the ship, and followed. Nothing could exceed their good humour. When about to commence my observations I ordered all trading to cease, drew a large semi-circle on the sand from waters' edge to waters' edge, and placed the boats' noses between its points. They seemed perfectly to understand the meaning of this line; not one of them attempted to overstep it; they squatted down, and remained perfectly quiet and silent. When a stranger arrived they shouted to him, who no sooner understood them than he crept rather than walked to the boundary, and squatted amongst the rest. They danced and sang for our amusement, played football with the seamen (who had not a chance with them), and displayed their skill in shooting at a mark. *Plover* anchored in company soon after noon. Calm.

Commander Moore went on shore, erected a mark, and buried a bottle, with information of the boats. I had satisfied myself before his arrival that ten feet was the greatest depth that could be carried in; I therefore called upon him to furnish me with a report of what his vessel could be lightened to, a copy of which I have the honour to enclose. By it their Lordships will perceive that, short of taking the *Plover's* masts out, she could not be lightened sufficiently to enter the inlet. Could it have been done with any partial lightening, I should have attempted it, being in every way so very desirable a position, in the first place from its high latitude, the friendliness of the natives, the supply of reindeer flesh we found could be obtained there, there being no other harbour south of it nearer than Kotzebue Sound; and lastly, the opinion of the ice-masters of the exposure to which a vessel wintering in the latter place would be subjected. Inside there is a good depth of water, and in one spot the *Plover* might have been placed alongside a bank, well sheltered. The natives gave me to understand that a considerable river runs into it; at least one that they can in their baidars navigate for many days, and that it ran to the S.E.; that on its banks, and in the neighbourhood of the inlet, the reindeer collected in great numbers, in their progress northerly, and in their return south.

The natives began to leave us, as before, at 8 P.M., tracking their baidars with dogs to their tents in a little sandy bay, a mile north of us. By the time we were ready to go off there was not one with us. I was sorry to find that, after all their good behaviour, they had been guilty of picking the pockets of two or three. One lost a handkerchief, another a glove, Commander Moore a box of caps, and the naturalist a small glass bottle, containing spirits and water.

Wednesday, Aug. 1st.—During the night we had a thick fog, which cleared off at 5 A.M. The boats left the ship to continue their examination; Commander Moore and myself to obtain a suite of magnetical and other observations. I returned to the ship shortly after noon with the boats to put my work on paper. Commander Moore went up the inlet, and found some baidars that had just arrived with several reindeer cut in quarters. They were stowing it with a considerable quantity they had already collected in a hole dug on the sand-spot off Point Collie, and appeared much annoyed at their stow-hole having been discovered. It was deep, and lined with logs of wood, having a roof formed also of logs about five feet above the ground, and covered with moss. For a small quantity of tobacco they sold 800lbs.—as much as Commander Moore's boat could carry. Learning from him that they were willing to dispose of more, I sent Lieutenant Cooper, the naturalist, and the surgeon, in a light boat to purchase it: seeing the boat pulling in fast directly for them, they got alarmed, and at length, before the boat touched the beach, a woman walked to the water's edge and held up the bottle the naturalist had lost day before, making signs to him when he landed that it had been picked up on the beach. It was in the same state as when he lost it, the cork never having been removed. They at least understand

stealing is an offence. At first they appeared rather sulky, and unwilling to part with any of their meat; after a few presents they resumed their former good humour, and sold fourteen quarters, all of them of young animals—it was without a particle of fat, badly killed, but still was owned by most on board to be very sweet and tender meat.

August 9th.—In the morning passed the carcase of a dead whale, and another in the afternoon. I sent a boat to this one, stuck a flag in it, and buried a bottle, containing a current paper, a notice of my whereabouts, and of my intention to go westerly, for the information of of the Plover, should she fall in with it. Many reports of land from the masthead,—a land bird seen.

Having this favorable wind for examining the pack by the westward, I continued to steer as high as the wind would permit on the starboard tack. The wind continued to lighten until the morning of the 10th, when it fell a dead calm.

The sea was literally covered in streams with particles of a pink colour, like wood ashes, or coarse sawdust from cedar, a tenth of an inch long, and 0·5 in diameter, and round. On placing it under the microscope, no appearance of circulation could be detected. Mr. Goodridge, the surgeon of this ship, supposes it to have proceeded from the carcases of the whales he saw yesterday, the oil having been forced through the pores by the pressure of the water; giving the uniform size and shape in which we found it. I endeavoured to dry some in blotting paper, but it was absorbed by the paper, and nothing left but an oily stain. Tried the current, and found it running to the westward, one-third of a mile an hour. Walrus grunting around in groups of eight and ten together; quantities of small pieces of drift wood, all pine, which appeared to have been washed from some beach. The temperature of the water at the surface in 29 fathoms was 45°, and at the bottom 43°. The dredge produced (in soft blue mud) a good many muscles, star-fish (found in all parts of this sea), a few bivalves (got before), and some very small shrimps.

A light southerly wind sprang up, gradually increasing, and veering to the eastward. At 10h. 30m. after standing to the S.W. for fifteen miles, the loom of the land in the neighbourhood of North Cape could be seen. I tacked to the N.E., with the wind fresh from E.S.E; not wishing to run the risk of being caught with a south-easter between the land and the ice-floe, which I considered could not be far off, from the extraordinary smoothness of the water, the numbers of walrus, and particularly a little black and white diver, which we never saw except in its vicinity.

August 11th.—Steering until this day in very thick and bad weather to the N.E., at which time we were in lat. 70° 1′, long. 173° 53′. Bore up north to endeavour to fall in with the pack. By 6 P.M. a dense fog came on, we hauled to the wind on the port tack under reduced sails, ship heading S.E., with a short jumping sea.

August 12th, A.M.—The wind shifted suddenly to N.N.E., and afterwards N.N.W., blowing hard; reduced to treble topsails and reefed fore-

sail, our soundings having decreased to 17 fathoms, mud. No observations. Our reckoning placed us in lat. 70° 20′, long. 171° 23′, in 18 fathoms, sand. Shortly after noon our depth decreased to 16 fathoms, the colour of the water becoming lighter, with a breaking sea all round. Our soundings decreased a fathom each cast until 1h. 30 P.M., when we wore in 11 fathoms shingle, getting in wearing 9 fathoms, then 12; and when trimmed to go back, as we went on, had several cast of 8, and one of 7 fathoms; then suddenly got into 14, which gradually increased. The sun came out, verifying our noon position. Until midnight it blew a strong gale.

August 13th, A.M.—Fine; wore to stand back to the shoal. Shoaled our water 13 fathoms, and at 10h. I imagined I saw breakers on the lee bow. Ship refused stays, wore, but had no less water at midnight; passed over the tail of the bank in 8 fathoms, five miles N.W. of our former position. Continued to stand to the eastward until I could weather the south end of the shoal; then tacked, passing, in 16 fathoms, three miles south of our first position. When I bore up north to fix its western edge, a slight easterly current took me rather farther in that direction than I intended. I have, however, confined it within a radius of five miles.

The weather would not allow of our anchoring so as make a closer examination of the shoal with our boats, and the sea was too hollow and heavy to attempt taking the ship herself into less water. In approaching the shoal, the bottom changes from mud to fine sand, and when in the least water coarse gravel and stones. We found nothing less than 7 fathoms; but I am of opinion that a bank exists which would bring a ship up.

August 14th.—We experienced very strong, variable, and S.E. breezes, with rain, until midnight of the 14th, when the wind changed to the westward, and brought with it fine weather. Continued to stand to northward and westward until noon on the 15th, being in lat. 71° 12′, and long. 170° 10′; bore up W. $\frac{1}{2}$ S., passing several pieces of drift wood. Our soundings increased as we left the bank (westerly) to 25 fathoms mud.

August 16th.—Wind very variable in strength, and direction S.S.W. to S.E. Large flocks of phalaropes, divers and gulls numerous. At midnight wind very fresh from S.S.E., steering W.S.W.; depth increasing to 10 fathoms. At 3h. A.M. on the 17th the temperature of the sea suddenly fell from 40 to 36 degrees, the wind became light and excessively cold. Shortened sail, supposing that I was very near the ice; frequent snow showers.

At 5h. A.M. wind shifted suddenly from the N.W. in a sharp squall with heavy snow. Shortly after eight, when one of these snow-storms cleared off, the packed ice was seen from the mast-head from S.S.W. to N.N.W., five miles distant. The weather was so bad that I bore up for the rendezvous. The weather, however, as suddenly cleared up. I hauled my wind for the north-western extreme of the ice that had been

seen. At 9h. 40m. the exciting report of "Land ho!" was made from the mast-head; they were both soon afterwards crowded.

In running a course along the pack towards our first discovery, a small group of islands was reported on our port beam, a considerable distance within the outer margin of the ice. The pack here was not so close as I found it before. Lanes of water could be seen reaching almost up to the group, but too narrow to enter unless the ship had been sufficiently fortified to force a hole for herself.

These small islands at intervals were very distinct, and were not considered at the time very distant. Still more distant than this group (from the deck) a very extensive and high land was reported, which I had been watching for some time, and anxiously awaited a report from some one else. There was a fine clear atmosphere (such a one as can only be seen in this climate), except in the direction of this extended land, where the clouds rolled in numerous immense masses, occasionally leaving the very lofty peaks uncapped, where could be distinctly seen columns and pillars, very broken, which is characteristic of the higher headlands in this sea—East Cape and Cape Lisburne for example.

With the exception of the north-east and south-east extremes none of the lower land could be seen, unless, indeed, what I took at first for a small group of islands, within the pack edge was a point of this great island.

This island, or point, was distant twenty-five miles from the ship's track, higher parts of the land seen not less, I consider, than sixty. When we hove to off the first land seen, the northern extreme of the great land shewed out to the eastward for a moment, and so clear as to cause some who had doubts before to cry out, "There sir, is the land quite plain."

From the time land was reported until we hove to under it, we ran twenty-five miles directly for it. At first we could not see that the pack joined it, but as we approached the island we found the pack to rest on the island, and to extend from it as far as the eye could reach to the E.S.E.

The weather, which had been fine all day, now changed suddenly to dense clouds and snow showers, blowing fresh from the south, with so much sea that I did not anchor as I intended. I left the ship with two boats; the Senior Lieutenant, Mr. Maguire; Mr. Seemann, naturalist; and Mr. Collinson, mate, in one; Mr. Goodridge, surgeon; Mr. Pakenham, midshipman; and myself, in the other, almost despairing of being able to reach the island.

The ship kept off and on outside the thickest part of the loose ice, through which the boats were obliged to be very careful in picking their way, on the S.E. side, where I thought I might have ascended. We reached the island, and found running on it a very heavy sea; the first-lieutenant, however, landed, having backed his boat in until he could get foot-hold (without swimming), and then jumped overboard. I followed his example; the others were anxious to do the same, but the sea was so high that I could not permit them.

We hoisted the jack, and took possession of the island with the usual ceremonies, in the name of Her Most Gracious Majesty Queen Victoria.

The extent we had to walk over was not more than 30 feet. From this space and a short distance that we scrambled up, we collected eight species of plants; specimens of the rock were also brought away.

With the time we could spare and our materials, the island was perfectly inaccessible to us. This was a great disappointment to us, as from its summit, which is elevated above the sea 1,400 feet, much could have been seen, and all doubt set aside, more particularly as I knew the moment I got on board I should be obliged to carry sail to get off the pack and out of the bight of it we were in; neither could I expect that at this late period of the season the weather would improve.

The island on which I landed is four miles and a half in extent east and west, and about two and a half north and south, in the shape of a triangle, the western end being its apex. It is almost inaccessible on all sides, and a solid mass of granite. Innumerable black and white divers (common to this sea) here found a safe place to deposit their eggs and bring up their young; not a walrus or seal was seen on its shore, or on the ice in its vicinity. We observed here none of the small land birds that were so numerous about us before making the land.

It becomes a nervous thing to report a discovery of land in these regions without actually landing on it, after the unfortunate mistake to the southward; but, as far as a man can be certain, who has 130 pair of eyes to assist him, and all agreeing, I am certain we have discovered an extensive land. I think, also, it is more than probable that these peaks we saw are a continuation of the range of mountains seen by the natives off Cape Jakan, (coast of Asia,) mentioned by Baron Wrangell in his Polar voyages. I returned to the ship at 7h. P.M. and very reluctantly made all the sail we could carry from this interesting neighbourhood to the south-east, the wind at the time allowing me to lie just clear of the pack.

August 18th.—Towards the morning we had a very strong wind, with constant snow storms and excessive cold. The wind having changed to northward, left me no choice but to return to my rendezvous for the boats.

August 20th.—Sighted Cape Listural in a thick fog; hauled off to await clear weather; passed several carcases of whales.

August 21st.—At 2h. P.M. again made the Cape, found the high land heavily covered with snow, and the low land partially. Very threatening weather; remained off and on until noon of the 23rd, when we anchored in 14 fathoms about twenty-five miles to the southward of the Cape. Here I landed, accompanied by the naturalist and several officers. I erected a mark and buried a bottle. A beautiful stream of water ran into this bay. The naturalist had a good harvest on its banks, which were literally covered with flowers, removed only a few feet from what I considered to be perpetual snow. Quantities of coal were also found here. There were about forty-three natives, all of whom we had

that seen before, very poor and miserable looking, but very friendly. They all had their bows and quivers with them. Finding a line drawn on the sand so useful as a boundary for their approach at Wainwright Inlet, I again had recourse to it, which they respected as before. I made them all presents, and returned to the ship in the evening just before she was enveloped in a dense fog.

August 24th.—Weighed, with a light air from the north-east, and clear (hot) weather; running for Point Hope, where I intended to build another mark, if the *Plover* had not already done it. At 1h. P.M., sighted off the low land the *Nancy Dawson* yacht, and the *Owen*. Mr. Shedden came on board, accompanied by Mr. Martin, the second-master of the *Plover*, who had been sent back by Mr. Pullen in charge of the two large boats of the expedition. I learned from Mr. Martin that he had arrived at the anchorage off Point Hope on the 19th inst., in company with the yacht, and was preparing to start again north in the *Owen*, sending the other boats back in charge of the yacht to Kotzebue Sound. The boats, after leaving the *Plover*, on the 25th of July, were detained a day or two by the ice before reaching Point Barrow; found the natives most friendly, and anxious to assist them in every way. The boats were accompanied as far as Point Barrow by the yacht. This vessel had many escapes; she was pressed on the shore once; ran on shore on another occasion, to the eastward of Point Barrow, and was only got off by the assistance of the natives, who manned her capstan and hove with great goodwill.

On another occasion she parted her bower cable from the pressure of the ice that came suddenly down on her, and had a narrow escape of a severe squeeze. She recovered her anchor and cable. Mr. Shedden erected a mark in Refuge Inlet, where he also intended to have left some provisions, but the natives were too numerous for him to do so without their knowledge.

He found another small inlet a short distance south of Refuge Inlet, in latitude 71° 5′, where he turned from his own store a large cask of flour, and a large cask of preserved meats. At Refuge Inlet he left information as to the position of these casks. Nothing could exceed the kindness of Mr. Shedden to those in the boats, in supplying them with everything his vessel could afford, and in following them with considerable risk. His crew were, unfortunately, a most disaffected set. He had too many of them for so small a vessel.

The boats all reached Dease Inlet on the evening of the 3rd, but were detained until the 5th by strong winds.

Their time, however, was well employed in stowing their boats, and a baidar Mr. Pullen bought at Point Barrow. They were fairly away on the afternoon of the 5th, having with them 100 day's provisions, besides ten cases of pemican: this little expedition then consisted of two 27-feet whale-boats, and one native baidar manned with fourteen persons in all.

I have sent their lordships copies of Mr. Pullen's public letters,

that have been received since his departure. From them they will gain more information than I could afford. Through these letters their lordships will also see with what a noble and proper spirit Lieutenant Pullen undertook his voyage, being nevertheless fully alive to its dangers and exposures.

I am quite sure their lordships, when they appointed Mr. Pullen, were fully aware of his character and capabilities. I trust, however, that they will not consider the following comments out of place:—I don't know any officer more capable of conducting with success such an expedition. He possesses health, great bodily strength, and endurance, ability, and great decision of character. Coupled with all these good points in their leader, the boats had an open sea and a fair wind, so that I have no apprehension as to their reaching one of the Hudson Bay's establishments on the Mackenzie early in this season, though not sufficiently early to return to Kotzebue Sound this year.

Dease and Simpson certainly made their voyage from the Mackenzie to Point Barrow and back, in one season, but then they travelled west, at the commencement of the season, and returned to the eastward at its close, when the winds prevailed from the westward. Our boats would have to return to the westward at the latter part of the season, which I believe to be impossible from the packing of the ice, the keenness of the westerly winds and currents.

Mr. Pullen's letter says pretty plainly that he will not return; he will, therefore be awaiting their lordships' instructions at York Factory.

August 24th.—We hove to off Point Hope towards midnight in very dirty weather.

August 25th.—Provisioned the *Owen*, and dispatched her in company with the yacht to Kotzebue Sound, supposing the *Plover* to have gone there. I desired Commander Moore to employ her in the examination of the Buckland river.

August 28th.—Finding it impossible to remain on the coast, I began to work off with all the sail the ship would carry. My crew were necessarily much exposed in making and shortening sail, and suffered a good deal from colds and rheumatism. I was also shorthanded, having been obliged to send ten men to the *Plover*, besides those I discharged at Oahu.

On the morning of the 31st I again stood in for Point Hope, but finding no landing there, I bore up for Kotzebue Sound. Passed Cape Krusenstern on the morning of the 1st, in a gale from the north-west, under third reefs of topsails and reefed courses. Before passing Hotham Sound we were under sail, and anchored off Chamisso Island at 9h. 30m. P.M. Found the *Plover* and the yacht at anchor under Choris peninsula. The *Owen* was absent with Commander Moore up the Buckland river, but they expected her return on the 3rd.

After completing our water from the springs in Chamisso, my people were employed assisting the *Plover* in preparing her winter quarters. The boatswain with a party, and the carpenters building a house.

Commander Moore having determined to winter in the Sound, and being very desirous to visit some chiefs who were reported to live in some considerable place up the river, I determined to go there with a party sufficient to ensure respect from these people, although Commander Moore told me they were most friendly. Accordingly, on the 9th, I started with the *Owen*, the *Plover's* decked boat, *Herald's* cutter, and two gigs, their crews, and several officers.

The first night we bivouacked at Elephant Point, and had the whole crew roaming over the ice cliffs for fossils, but could not find one of any importance.

The second night we staid at a large native village of 22 tents and about 150 people. We pitched our tents close to one extreme of them, had our coppers, pots, kettles, axes, saws, &c., on shore; but not an article was lost, although at times we had a third of their numbers about us. Even if in our way they were not troublesome when we told them we wished them to go away.

They were all very fine men, but disfigured in appearance by the labrets they all wear. They brought us wood and water, gave us fish and venison, and offered us whales' blubber and seals' flesh. Leaving a few men to take care of the boats, the rest came on shore for an hour. The natives were highly amused, and joined in their sports of leaping and running.

The sportsmen were always accompanied by some of them; they were greatly surprised to see some of the young officers killing the birds right and left. The moment the boats started (until we got far up) we were preceded by their little kiacs, sounding with their paddles for the channel. We had pilots in each of the large boats who remained constantly with us, and who showed great concern when they unavoidably got us on shore.

I have been the more particular in my remarks relative to these interesting people, because their behaviour on the visits of Captain Beechey and myself have been so very opposite. It may be accounted for in this way: we had an interpreter who could speak with them, through which they found out what our object was in going amongst them.

The Russian settlement has also, I consider, been very instrumental in causing this alteration in their conduct. We found many of them with shirts, handkerchiefs of gaudy colours, cottons printed with walrus, reindeer, and all the other animals that they are in the habit of catching, and representing in ivory, knives, and ketties, all these came from the Russian settlement. They were latterly very anxious to obtain muskets, and evinced no fear in discharging them.

September 11th.—We arrived with the boats at a part of the river, thirty miles up, perfectly barred across with rock, over which there was a fall of about 13 inches. Here the heavy boats were stopped, but by unlading the lighter ones we were enabled to haul them over.

Wishing myself to return to the ship, and Commander Moore being still anxious to to go on, I directed Mr. M. A. Quire (senior lieutenant

of the Herald) to accompany him in my gig, for the purpose of mutual protection (leaving one of the larger boats below the fall to wait their return). I directed them to make a tracing of the river as far as they might ascend it, and return to their respective vessels before the 23rd inst. They ascended the river about thirty miles beyond where I left them. In this distance they met with but two natives. They passed several places where they were obliged to unload and haul these light boats over. They found also the pine trees scattered about in twos and threes a little distance from the bank. The river, from the mud and leaves hanging on the banks, showed that at some period of the year, it was at least ten feet above the level at that time.

The absence of spars and wood of any description on the frequent bridges of rocks across the river, on the summit of the banks (which bear evident marks of having been overflown at some season), shows that the Buckland is not the source from which the enormous quantities of wood found at Choris Peninsula is derived. We have never found a particle of wood on the eastern face of this peninsula—all is on its western.

Commander Moore and his party returned on the 19th. We now commenced to prepare for our departure southward. The *Plover's* house was nearly completed, and as much provisions as she could stow or take care of were placed on board her.

September 26th.—By this day we were ready to start, having completed all the *Plover's* masts. She was not dismantled, nor did Com. Moore intend doing so until she was fairly laid up on the beach.

In consequence of the illness of Mr. Shedden, of the yacht, and of my having previously removed his chief mate, I was obliged to direct Mr. Parsons, (second-master) of this ship, to take charge of her and navigate her to Mazatlan, where he might expect to meet me.

Early on the morning of the 29th September, I weighed from Kotzebue Sound with a fair breeze from the north-east, yacht in company. At the time of our departure there was early snow on the low lands, the streams were still running. In fact, the whole month of September had been remarkably fine, generally with strong winds from the eastward.

We experienced very hard weather on getting out of the Sound: parted company with the yacht.

Passed Bhering Strait on the morning of the 2nd October in a heavy gale from the N.N.W.

October 11th.—At midnight passed the Aleutian Group by the Straits of Amonkhta, in long. 171° W. These straits are 35 miles wide, perfectly safe, and free from the races frequently met with in the other straits of this chain.

On the 13th October, in lat. 117° 30′, long. 106°, we experienced a heavy northerly gale, with unusually heavy sea, which broke on board of us, and nearly swept our decks.

On the 19th October, in lat. 43°, long. 106°, we had another gale at the S.S.E. Between this and the 14th November, when we anchored

at Port Mazatlan, there was nothing remarkable but the prevalence of north and south-east winds, which forced us to the coast, within 100 miles of San Francisco, before we got the north-west wind.

At Mazatlan I found lying H.M.S. *Amphitrite* and the *Nancy Dawson* yacht, this little vessel having arrived the morning previous.

I have endeavoured in this letter and the accompanying documents to give their Lordships a detailed account of my proceedings while in the Arctic circle, which I trust will meet with their approval.

And in conclusion, I hope for the consideration of their lordships for the officers serving under my command, who have as heretofore, without exception displayed uncommon zeal, in their respective duties.

I am, &c.,

HENRY KELLETT, *Captain.**

---

We must now add a word in conclusion as to Sir John Franklin and his party. It was scarcely to be expected that any vestige of them should be found by Capt. Kellett, but there are many reasons, which in our opinion, render a close search along the shores of the Wellington Channel of the most vital importance, and without which all else may prove totally unavailing.

In a small sketch like the present it is impossible to go much into detail, or to enter much into the reasons which impress us with the firm conviction of the necessity of searching that channel to the utmost possible extreme in the ensuing summer; but a few general remarks may be given, which may at least serve to show that our opinion of Sir John Franklin having pursued that route is not without good foundation.

It is well known that his instructions directed him to try the first favorable opening to the south-west after passing Cape Walker; and failing in that to try the Wellington Channel.

Every officer in the British service, as a matter of course, follows his instructions, so far as they are compatible with the exigencies of the case, be it what it may, nor ever deviates from them without good and justifiable cause.

* *Extract from Times, Jan. 23rd.*—"The Herald's people were sickly, having suffered from scurvy, from being nearly six months on salt provisions, and no vegetables."

[This affords us the opportunity of again referring to the favorable report upon EDWARDS' PATENT PRESERVED POTATO, by Sir James Ross and the Medical Officers of the recent Expedition, stating it to be "*invaluable as a Sea Store, and as Sickness and Scurvy occurred in the Expedition*, this prepared vegetable proved of the most essential benefit." We are anxious to impress on all engaged in long voyages the absolute necessity of adopting every precaution against that sad scourge—the Scurvy; and from the many reports we have seen we strongly recommend Edwards' Preserved Potato as an effectual check to this disease. We are glad to observe that the Patentees are enabled this season to supply the vegetable at a reduced Price.—ED. N.M.]

If then Sir John Franklin failed in finding an opening to the south-west of Cape Walker, it is reasonable to suppose he obeyed his instructions, and tried the Wellington Channel. This is the *first* stand we make.

The *second* ground upon which we stand is that Sir John Franklin expressed to many of his friends a favourable opinion of the Wellington Channel, and, which is of far more consequence, intimated his opinion *officially*, and *before* the Expedition was determined upon, that the Wellington Channel seemed to offer the best chance of success :—that Captain Fitzjames, his immediate second in command, in the *Erebus*, was strongly in favour of the Wellington Channel and always so expressed himself,—"The north-west passage is certainly to be gone through by Barrow Straits, but whether south or north of Parry's group remains to be proved. I am for going north, edging N.W., till in long. 140° if possible."*

Who can doubt that the opinion of Captain Fitzjames,—a man of superior mind, beloved by all who know him, and in the service "the observed of all observers," would have great weight with Sir John Franklin, even if Sir John had not been himself predisposed to listen to him? Our *third* position is that in 1840, a few years prior to the fitting out of Franklin's Expedition, Colonel Sabine published the Narrative of Baron Wrangell's Expedition to the Polar Sea, undertaken between the years 1820 and 1823, (translated by Mrs. Sabine from the German):—that in his preface to that most deeply interesting narrative of adventures, Colonel Sabine points to the Wellington Channel as the most likely course for the successful accomplishment of the north-west passage. "Setting aside the possibility of the existence of unknown land, the probability (he says) of an open sea existing to the north of the Parry Islands, and communicating with Behring Straits appears to rest on strict analogical reasoning." Again he says, "all the attempts to effect the north-west passage since Barrow Strait was first passed in 1819 have consisted in an endeavour to free a vessel by one route or another, through this land-locked and ice-encumbered portion of the Polar Ocean."

No examination has made known what may be the state of the sea to the north of the Parry Islands; whether similar impediments may there present themselves to navigation, or whether a sea may not there exist offering no difficulties whatever of the kind, as M. Von Wrangell has shewn to be the case to the north of the Siberian Islands; and as by strict analogy we should be justified in expecting.

Colonel Sabine it is well known was upon one of the Polar voyages. He was in constant communication with Sir John Franklin when the Expedition was fitting out, and it is but reasonable to suppose that he would be somewhat guided by his opinion.

We have then the opinion of Sir John Franklin himself as to the

* See page 71, Parliamentary Paper, Arctic Expedition, Sessl. No. 924.—1848,—13 April.

Wellington Channel, the opinion of Colonel Sabine, of Captain Fitzjames, to which we might add the very tempting prospect held out by Parry, who passed and repassed the Wellington Channel (so named by him), and saw nothing but a clear open sea to the northward.

We do therefore most earnestly hope that the Government will still see the urgent necessity of causing this channel to be examined, and which Sir James Ross was ordered *imperatively* to search; but unfortunately never received those orders, having been drifted out of Barrow Strait against his will, before the arrival of the *North Star*, which vessel is now passing a solitary winter in the ice, if not within Barrow Strait somewhere on the Greenland Coast in Baffin Bay.

---

### Sir John Richardson's Report of his Search for Sir John Franklin.

Sir,—I have the honour to acquaint you, for the information of my Lords Commissioners of the Admiralty, of my return from America in the Royal Mail steamer Caledonia.

Having, as opportunities offered, sent you from time to time detailed accounts of the progress of the Arctic searching expedition under my command, I beg now to submit, for the consideration of their Lordships, a connected summary of the whole proceedings of the party up to this time, and also to report the organization of a detachment under charge of Mr. Rae, to ensure the completion of the entire scheme of search comprehended in their Lordships' instructions to me.

On the 4th of June, 1849, five seamen, fifteen sappers and miners, with four boats, 15,800 lbs. of pemican, and other provisions and stores, were embarked at Gravesend on board the Hudson's Bay Company ships Prince Rupert and Westminster. The arrival of these ships at York Factory was later than usual, and some of the expedition stores still remained on board on the 10th of September; but Chief Trader Bell, of the Hudson's Bay Company, who now took charge of the party, considered it imprudent to wait longer for their landing. At this date, therefore, he commenced his voyage into the interior, taking with him, in addition to the English boats and their crews, a large batteaux, with 16 Canadian *voyageurs*, and the stores necessary for building a winter residence, providing for the fisheries, and equipping and paying Indian hunters.

Owing to the extreme dryness of the summer, the rivers were uncommonly low, and the boats being therefore, unable to carry more than two-thirds of their ordinary load, it was necessary to leave a considerable quantity of pemican at York Factory to be forwarded inland, with the additional supplies next summer. The difficulties which Mr. Bell encountered, as well from the lowness of the waters as from the very early setting in of winter, were great, his progress consequently was slow, and he was finally arrested by the freezing of the lakes, six days' march short of his intended winter quarters at Cumberland House.

He immediately housed the boats, constructed a storehouse for the reception of the provisions and other packages, established fisheries, and as soon as sledges could be made, accompanied the bulk of the party on snow shoes through the woods to Cumberland House.

At that place, and at Beaver Lake, about sixty miles further to the northward, the men were supported through the winter by the fisheries, but at Cedar Lake, where the boats were laid up, the fishing was unproductive, and there was, consequently, an unforeseen consumption of pemican by the boat keepers, and the wives and children of three of the *voyageurs* who could not travel over the snow to Cumberland House. This deficit of pemican was fully made up during the winter by the exertions of the Hudson's Bay Company's officers on the upper portion of Saskatchewan. Mr. Bell made winter journeys to Cedar Lake, and early in the Spring sent carpenters down to put the boats in repair, so that everything was ready for the resumption of the voyage on the breaking up of the rivers, which took place in the beginning of June, 1848.

On the 25th of March, 1848, Mr. Rae and I left Liverpool in the North American mail steamer Hibernia, landed a fortnight afterwards at New York, and proceeded, by way of the Hudson and Lake Champlain, to Montreal, where we found waiting for us 16 Canadian *voyageurs*, forming the crews of two canoes provided by Sir George Simpson, Governor of the Hudson's Bay Company's territories. Our route lay through Lakes Ontario, Erie, St. Clair, and Huron, to Sault St. Marie, where we were detained some days waiting for the breaking up of the ice on Lake Superior. When the lake opened we resumed our voyage to Fort William, and from thence to Rainy Lake, the Lake of the Woods, and Lake Winipeg, where we were again stopped for some days by ice, but having at length succeeded in breaking our way through, we entered the Saskatchewan river on the 9th of June, and on the 15th reached Cumberland House. Here we learned that Mr. Bell had set out a fortnight previously, but had been detained by ice in Beaver Lake for four days. We followed him with diligence through Beaver Lake, Churchhill River, Isle á la Crosse, Buffalo and Methy Lakes, to Methy Portage, where we overtook him on the 20th of June, 1848.

With the assistance of the *voyageurs* from Montreal, the boats and stores were transported, on the men's shoulders, across the portage in eight days; this laborious proceeding having been rendered necessary by the death of the whole of the horses usually employed there. The two canoes, with their crews, were sent back to Canada.

On the 15th of July, having reached the last portage on Slave River, three boats were arranged for the sea voyage, with full loads of pemican and able crews, consisting in the aggregate of eighteen men. Mr. Rae and I embarked in them to proceed with all speed to the mouth of the Mackenzie, leaving Mr. Bell with the remainder of the party and two boats containing the stores for winter use, with directions to make the best of his way to Great Bear Lake, to establish a fishery at its west end, near the site of Fort Franklin, for the convenience of the sea party, in the event of its having to return up the Mackenzie; and lastly, having traversed the lake to its northern extremity to erect dwelling-houses and storehouses near the influx of Dease river, and to carry on fisheries at such suitable places as he should discover in the neighbourhood. He was also instructed to dispatch James Hope (a Croe Indian, belonging to his party, who had been formerly employed in the expedition, under Messrs. Dease and Simpson, and knew the country well), together with a native hunter of the district, to the banks of the Coppermine in the beginning of September, there to hunt till the 20th of the month, and looking diligently for the arrival of the boats.

On my way to the sea I landed three bags of pemican at Fort Good Hope, the lowest of the Company's posts on the Mackenzie, for the use of any party

from Sir James Ross's ships or from the Plover, which might reach that establishment, and I likewise deposited one case of the same article, with several memoranda and letters, at Point Separation, which forms the apex of the delta of the Mackenzie, marking the locality in the manner agreed upon

We reached the sea on the 4th of August, and had an interview with about 300 Esquimaux, who were collected to meet us, having been apprised of our coming by signal fires lighted by their hunting parties on the hills skirting the river. The distance from Point Encounter, where we met this party, to the mouth of the Coppermine river, including the larger inflexions of the coast line, is upwards of 800 miles; and as we had almost constantly head winds, we rowed along, near the shore, landing at least twice a day to cook, occasionally to hunt, for the most part at night to sleep on shore, and often to look out from the high capes. Our communications with parties of Esquimaux, assembled on the headlands to hunt whales, or scattered in parties of two or three along the coast in pursuit of reindeer and waterfowl, were frequent. They came off to us with confidence, and through the medium of our excellent Esquimaux, Albert, who spoke good English, we were able to converse with them readily. They invariably told us that no ships had passed, and were rejoiced to learn by our inquiries that there was a prospect of their seeing more white men on their shores. Up to Cape Bathurst, or for about one-third of the distance between the Mackenzie and Coppermine, the Esquimaux informed us that for six weeks of summer, or as they expressed it, for the greater part of two moons, during which they were chiefly occupied in the pursuit of whales, they never saw any ice.

We found an Esquimaux family encamped on the extremity of Cape Bathurst, but as near to that place as we could effect a landing without observation, we erected a signal post and buried a case of pemican; and we made a similar deposit, marked by a pile of painted stones, on the extremity of Cape Parry.

After rounding the latter Cape we observed, for the first time on the voyage, flows of drift ice, which became more numerous as we approached Dolphin and Union Strait; and in this part of the coast we saw no Esquimaux, though we found a few recent traces of their hunting parties.

On the 22nd of August we had a strong gale of westerly wind, before which we ran under sail for some hours, but it speedily augmented to a violent storm, and we were compelled to provide for the safety of the boats by running among the ice, loosely packed on Point Cockburn. During the night much ice drifted past, and in the morning we found ourselves hemmed in by dense packs, extending as far as the eye could reach. Up to this time the weather had been of the usual summer temperature of that region, but it now became very cold, and we had continual frosts, with frequent snow storms, during the remainder of our stay on the coast. By keeping close to the beach in places where the shallowness of the water kept off the larger pieces of ice by cutting passages for the boats where the packs abutted against the rocks, by dragging the boats over the smoother floes, and by making portages along the shore, according to circumstances, with the aid of occasional spaces of open water, we succeeded, with much labour, in making our way to a bay between Capes Hearne and Kendall by the end of the month. I had previously thought it advisable to abridge the labours of the crews, by leaving one boat, with its cargo of pemican, on the north side of Cape Krusentern, and by the time that we came near Cape Kendall the two remaining boats were scarcely seaworthy, having been much cut by the young ice which now bound the floes together.

The ground was covered with snow, no open water was visible from the highest capes, and the winter appeared to have set in with rigour. I found myself, therefore, reluctantly compelled to abandon the boats, and to prosecute the journey to our winter residence on Great Bear Lake, by land. The pemican and ammunition were carefully concealed for future use, the boats were hauled up on the beach, and the party directed to prepare for the march. The baggage, consisting of thirteen days' provisions, cooking utensils, hatchets, astronomical instruments, the ammunition, a few books, two nets with several setting lines, Halkett's portable boat, a package of dried plants, my bedding, and a few articles of clothing, were distributed by lot. Each man carried in addition to his assigned load, his own blanket, moccassins, and such articles of clothing as he chose. All were furnished with snow shoes. Mr. Rae carried the greatest part of his own bedding and spare clothing.

We set out on the 2nd of September, and on the following day came to an encampment of Esquimaux. They cheerfully ferried us across the mouth of a wide river, which I named the Rae. We afterwards crossed the Richardson in Lieutenant Halkett's boat, and following the line of the Coppermine and of its tributary, the Kendall, we gained a branch of Dease river; and, on the thirteenth day reached our destined quarters at Fort Confidence. Our march through half-frozen swamps, or over hills covered with snow, was necessarily toilsome; but by keeping as much as possible in the river valleys we had to pass only one night without firing, for the purposes of cookery. In a thick fog, during which we were able to proceed in the proper direction by compass, James Hope and his Indian companion, who had been dispatched by Mr. Bell to meet us, lost their way, and so missed us; but, on coming to our trail on the Kendall, they perceived that we had passed, and returned to Fort Confidence two days after our arrival there.

In the voyage between the Mackenzie and Coppermine, I carefully executed their Lordships' instructions with respect to the examination of the coast-line, and became fully convinced that no ships had passed within view of the mainland. It is, indeed, nearly impossible that they could have done so unobserved by some of the numerous parties of Esquimaux on the look-out for whales. We were, moreover, informed by the Esquimaux of Back's Inlet, that the ice had been pressing on their shore nearly the whole summer, and its closely packed condition when we left it, on the 4th of September, made it highly improbable that it would open for ship navigation later in the season.

I regretted extremely that the state of the ice prevented me from crossing to Wollaston land, and thus completing in one season the whole scheme of their Lordships' instructions. The opening between Wollaston and Victoria lands has always appeared to me to possess great interest, for through it the flood tide evidently sets into Coronation Gulf, diverging to the westward by the Dolphin and Union Strait, and to the eastward round Cape Alexander. By the fifth clause of Sir John Franklin's instructions, he is directed to steer south-westward from Cape Walker, which would lead him nearly in the direction of the strait in question. If Sir John found Barrow Strait as open as when Sir Edward Parry passed it on four previous occasions, I am convinced that (complying as exactly as he could with his instructions, and without looking into Wellington Sound, or other openings either to the south or north of Barrow Strait,) he pushed directly west to Cape Walker, and from thence south-westwards. If so, the ships were probably shut up on some of the passages between Victoria, Banks, and Wollasten lands. This opinion, which I advocated in my former communications, is rather strength-

ened by the laborious journeys of Sir James Ross having disclosed no traces of the missing ships.

Being apprehensive that the boats I left on the coast would be broken up by the Esquimaux, and being, moreover, of opinion that the examination of the opening in question might be safely and efficiently performed in the only remaining boat I had fit for transport from Bear Lake to the Coppermine, I determined to entrust this important service to Mr. Rae, who volunteered, and whose ability and zeal in the cause I cannot too highly commend. He selected an excellent crew, all of them experienced *voyageurs*, and capable of finding their way back to Bear Lake without guides, should any unforeseen accident deprive them of their leader. In the month of March (1849) a sufficient supply of pemican and other necessary stores, with the equipments of the boat, were transported over the snow on dog sledges, to a navigable part of the Kendall river, and left there under the charge of two men. As soon as the Dease broke up in June, Mr. Rea would follow with the boat, the rest of the crew and a party of Indian hunters, and would descend the Coppermine river about the middle of July, at which time the sea generally begins to break up. He would then as soon as possible, cross from Cape Krusenstern to Wollastan land, and endeavour to penetrate to the northward, erecting signal columns and making deposits on conspicuous headlands, and especially on the north shore of Bank's land should he be fortunate enough to attain that coast. He was further instructed not to hazard the safety of his party by remaining too long on the north side of Dolphin and Union Strait, and to be guided in his movements by the season, the state of the ice, and such intelligence as he might obtain from the Esquimaux. He was, moreover, directed to report his proceedings to their Lordships immediately on his return, and should his dispatches experience no delay on the route, they may be expected in England in April or May next. He was also requested to engage one or more families of Indian hunters to pass the summer of 1850 on the banks of the Coppermine river, to be ready to assist any party that may direct their course that way.

With respect to the recommendation of additional measures in furtherance of the humane views of their Lordships, it is necessary to take into account the time for which the discovery ships were provisioned. Deer migrate over the ice in the spring from the main shore to Victoria and Wollaston lands, in large herds, and return in the autumn. These lands are also the breeding places of vast flocks of snow geese; so that with ordinary skill in hunting, a large supply of food might be procured on their shores in the months of June, July, and August. Seals are also numerous in those seas and are easily shot, their curiosity rendering them a ready prey to a boat party. In these ways and by fishing, the stock of provisions might be greatly augmented. And we have the recent example of Mr. Rae, who passed a severe winter on the very barren shores of Repulse Bay, with no other fuel than the withered tufts of a herbaceous andromada, and maintained a numerous party on the spoils of the chase alone for a whole year. Such instances forbid us to lose hope. Should Sir John Franklin's provisions became so far reduced as to be inadequate to a winter's consumption, it is not likely that he would remain longer by his ships, but rather that in one body, or in several, the officers and crews, with boats cut down so as to be light enough to drag over the ice, or built expressly for that purpose, would endeavour to make their way eastward to Lancaster Sound, or southward to the main land, according to the longitude in which the ships were arrested. I would therefore beg leave to suggest that the Hudson's Bay Company be authorised and requested to

promise liberal rewards to Indians and Esquimaux who may relieve white men entering their lands. Some parties of Esquimaux frequenting the coast to the westward of the Mackenzie are in the habit of passing the winter in the vicinity of the Hudson's Bay Company's post on the Rat river (a tributary of the Peel), and might be interested in the cause by judicious promises. The Russian Fur Company have a post on the Yucon or Colvile, which falls into the Arctic Sea about midway between the Mackenzie and Behring Straits, and through their officers similar offers might be made to the western Esquimaux. We know from the narrative of Sir John Franklin's discovery of that coast, and also from the subsequent voyage of Messrs. Dease and Simpson, that the Esquimaux who frequent the estuary of the Mackenzie meet those from Point Barrow, at an intermediate point, for the purposes of barter; and in this way intelligence of any interesting occurrence is conveyed along the coast. The Russian post on the Colvile receives its supplies from a post in Norton Sound, where it would be easy for any vessel bound to Behring Straits to land a communication. Mr. Rae, having been appointed to the charge of the Mackenzie River fur district, will give a proper direction to the efforts of Indian hunters in that quarter.

As it is thought by some, whose opinion I highly value, that the discovery ships may have penetrated to the westward in so high a latitude as not to come within sight of the main land, I may further suggest the desirableness of the examination of the western coasts of Bank's and Parry's Islands, but as this would require a ship expedition by way of Behring Straits, I must leave the discussion of the practicability of such a scheme to the able executive officers who have navigated the northern seas.

Having thus, Sir, in a more diffuse manner than is usual in an official letter, but in accordance with my sense of the deep interest felt on the subject, not only by my Lords Commissioners, but by the nation at large, and I may add by the whole civilized world, recapitulated the proceedings of the expedition, and detailed my opinions, I have only to add, that after the return of Mr. Rae and myself from the coast in September, 1848, we devoted our leisure during the winter to observations on the magnetic intensity and force, with the uniplar magnetometer, and Dr. Lloyd's inclinometer, and kept hourly registers for fourteen hours each day of the declinometer, barometer, thermometer, and wind vane.

In the beginning of May, 1849, Mr. Bell and I taking with us all the Europeans of the party then remaining at the fort, and such of the Canadians as were not to be employed with Mr. Rae on his summer expedition, crossed Great Bear Lake on the ice, and when the navigation opened in June, ascended the Mackenzie, and retraced my outward route. We were stopped by ice on Great Slave Lake till the 11th of July. On reaching Methy Portage, Mr. Bell resumed his duties in the Company's service, and I proceeded with a party to Norway House, where I discharged the Canadians, whose term of engagement had expired, and sent the seamen and sappers and miners to York Factory, there to embark in the company's ship bound for England. I then continued my voyage to Canada in a canoe, and after passing two days at Montreal with Sir George Simpson in examining the charges for supplies furnished to the expedition, proceeded to Boston for embarkation, in the mail steamer.

I am, Sir, &c.

JOHN RICHARDSON, *Med. Insp.*
*Commanding the Arctic Searching Expedition.*

## Examination of Masters and Mates.

A List of the Masters and Mates in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 30th November last.

### Masters.

Those having an Asterisk (*) prefixed to their Names served last as Mates.

| Names of Party who has received the Certificate. | Class of Certificates | Date of Birth. | Present or last previous service. | No. of Register ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| J. Thomson | 3rd | 1822 | Clydesdale, 541 tons... | ..... | London | Oct. 18th |
| B. Stacy | 2nd | 1823 | Sarah Charlotte, 224 t. | 18477 | " | — 19th |
| P. Bennett | 2nd | 1824 | Swan, 830 tons* ..... | 273477 | Liverpool | — 19th |
| J. King | 1st | 1816 | Gardner, 320 tons..... | ..... | " | — 19th |
| F. Ritson | 1st | 1824 | Superb, 326 tons ..... | ..... | Newcastle | — 19th |
| J. Fairbairn | 3rd | 1827 | Wansbeck, 223 tons... | 74361 | S. Shields | — 19th |
| J. Hamlin | 1st | 1816 | Dalhousie, 772 tons ... | ..... | Glasgow | — 20th |
| D. Macintyre | 1st | 1826 | Sir Geo. Pollock, 655 | ..... | " | — 20th |
| J. S. Bobertson | 2nd | 1824 | Ann Maclean, 320 tons | ..... | " | — 20th |
| J. Grey | 2nd | 1811 | Maitland, 900 tons ... | ..... | London | — 22nd |
| J. Adams | 2nd | 1819 | Malacca, 589 tons* ... | 30997 | " | — 22nd |
| H. A. Bell | 2nd | 1825 | Euphrates, 343 tons* | 68964 | " | — 22nd |
| R. C. Steele | 2nd | 1827 | Palmyra, 414 tons* ... | 71763 | " | — 22nd |
| J. Bannerman | 3rd | 1821 | Woodbridge, 516 tons* | 16797 | " | — 22nd |
| J. G. Parker | 3rd | 1821 | Ostrich, 425 tons ..... | 18687 | " | — 22nd |
| R. J. Wynn | 3rd | 1818 | Princess Royal, 564 ... | 326215 | " | — 22nd |
| G. Scott | 1st | 1817 | Chieftain 383 tons ... | ... ..... | Leith | — 22nd |
| D. Waterson | 2nd | 1818 | Morley, 578 tons ..... | 22491 | London | — 25th |
| H. F. Bell | 3rd | 1817 | Woodbridge, 516 tons | 10737 | " | — 25th |
| J. Crutwell | 2nd | 1819 | Duke of Clarence, 230 | 324604 | S. Shields | — 25th |
| R. Trannack | 1st | 1810 | Mary Holland, 224 tns | ..... | Liverpool | — 26th |
| J. Stewart | 1st | 1811 | Stirlingshire, 640 tons | 182795 | " | — 26th |
| T. Power | 2nd | 1818 | Jane, 72 tons ..... | ..... | Plymouth | — 26th |
| J. K. Thomson | 1st | 1815 | Pandora, 297 tons* ... | 274732 | Glasgow | — 26th |
| J. Pook | 1st | 1813 | Hindostan, 708 tons... | ..... | London | — 29th |
| F. Halpin | 3rd | 1819 | Dido, 250 tons*..... | 394425 | " | — 29th |
| R. W. Morgan | 2nd | 1826 | Oriental, 500 tons* ... | 18884 | " | Nov 1st |
| H. G. Williams | 2nd | 1819 | Thomas Blyth, 372 t* | 159567 | " | — 1st |
| J. Young | 2nd | 1807 | St. Vincent, 630 tons | ..... | " | — 1st |
| T. Dawson | 1st | 1808 | Prometheus, 288 tons | ..... | Liverpool | — 2nd |
| J. Stewart | 2nd | 1818 | Glen Huntley 505 tn.* | ..... | Glasgow | — 3rd |
| A. Cohu | 1st | 1823 | J. Bunyan, 526 tons* | 325728 | Portsmoth | — 3rd |
| F. Bristow | 2nd | 1824 | Angelina, 433 tons*... | 15282 | London | — 5th |
| A. Connor | 3rd | 1812 | Helen Gillman, 127 t* | 228351 | " | — 5th |
| J. H. Watling | 3rd | 1820 | William & Alfred338* | 12384 | " | — 5th |
| R. D. Robertson | 1st | 1824 | Deogaum, 521 tons*... | 83315 | Leith | — 6th |
| J. Fleming | 2nd | 1815 | Charles, 334 tons ..... | 91382 | London | — 8th |
| J. M'Lean | 2nd | 1826 | Hooghly, 466 tons* ... | 75530 | " | — 8th |
| J. W. Hurst | 2nd | 1804 | Sam. Boddington, 669 | ..... | " | — 8th |
| F. D. King | 2nd | 1821 | Seton, 733 tons* ..... | 27104 | " | — 8th |
| A. Beech | 2nd | 1817 | Emma Eugenia, 383 t. | ..... | " | — 8th |

| | | | | | | |
|---|---|---|---|---|---|---|
| E. Knott | 3rd | 1821 | Rein Deer 700 tons*... | 348577 | London | Nov. 8th |
| W. Sundstrom | 3rd | 1797 | Dorothea, 221 tons ... | 24479 | " | — 8th |
| W. Thompson | 2nd | 1825 | Britannia, 379 tons ... | 28806 | S. Shields | — 8th |
| J. Carey | 1st | 1816 | Cornelius, 247 tons ... | ..... | Liverpool | — 9th |
| W. Morgan | 3rd | 1804 | Angelina, 434 tons ... | ..... | London | — 12th |
| W. M'Lean | 2nd | 1822 | Envoy, 746 tons ..... | 42349 | " | — 12th |
| W. Donaldson | 2nd | 1827 | Richard Cobden, 380* | 83506 | Dundee | — 12th |
| R. L. Stroud | 3rd | 1825 | Pike, 187 tons* ..... | 58241 | London | — 13th |
| J. Johnson | 2nd | 1825 | Ann, 281 tons* ..... | 90835 | S. Shields | — 13th |
| T. M'Donnell | 2nd | 1827 | Deborah, 553 tons* ... | 147610 | Glasgow | — 14th |
| J. Wreyford | 2nd | 1823 | Stamboul, 142 tons ... | 197547 | Yarmouth | — 14th |
| I. C. Gales | 1st | 1807 | Jane, 328 tons ..... | ..... | London | — 16th |
| H. Thornton | 2nd | 1825 | Etheldred, 430 tons* | 30215 | " | — 16th |
| E. E. Osborne | 1st | 1813 | Reliance, 807 tons..... | ..... | Liverpool | — 17th |
| J. Greetham | 2nd | 1828 | Janet, 182 tons* ..... | ..... | Glasgow | — 17th |
| G. Howes | 1st | 1820 | Brazilian, 350 tons*... | 325563 | London | — 19th |
| J. F. Ives | 2nd | 1828 | Earl Stanhope, 296 t.* | 168677 | " | — 19th |
| T. J. Thomas | 2nd | 1816 | Julinder, 530 tons* ... | 13604 | " | — 19th |
| J. Parsons | 2nd | 1803 | Lady Nugent, 668 tns | ..... | " | — 19th |
| T G. Simpson | 2nd | 1820 | Prima Donna, 24 tons | ..... | " | — 19th |
| E. Stewart | 2nd | 1816 | George, 414 tons*..... | 25199 | " | — 19th |
| J. Lumsden | 2nd | 1820 | Isabella & Ann, 228 tn | 185711 | " | — 19th |
| J. Uran | 3rd | 1821 | Susan King, 169 tons | ..... | " | — 12th |
| J.W. Witherick | 2nd | 1821 | Fanny, 223 tons* ..... | 48775 | Hull | — 19th |
| W. Darke | 1st | 1824 | Ina, 466 tons ..... | 163378 | Glasgow | — 20th |
| A. Scott | 1st | 1824 | Polly, 270 tons ..... | 120868 | S. Shields | — 20th |
| W. H. Bishop | 1st | 1825 | Asia, 523 tons ..... | 325635 | Plymouth | — 21st |
| C. R. Ferguson | 2nd | 1824 | Poictiers, 756 tons* ... | 16973 | London | — 22nd |
| W. C. Ives | 2nd | 1827 | Prompt, 398 tons* ... | 154488 | " | — 22nd |
| J. W. Hore | 3rd | 1827 | Commodore, 200 tons* | 460718 | " | — 22nd |
| A. M'Kenzie | 2nd | 1816 | Mary, 296 tons ..... | 164356 | Liverpool | — 23rd |
| J. Lyall | 2nd | 1821 | Elf, 196 tons*..... | 98753 | London | — 26th |
| H. S. Machin | 2nd | 1828 | Adelaide, 68 tons ..... | 324195 | " | — 26th |
| G. Taylor | 3rd | 1819 | Glentannar, 610 tons | ..... | " | — 26th |
| T. E. Marsh | 2nd | 1818 | Alfred, 295 tons* ..... | 156956 | Liverpool | — 27th |
| W. Slinn | 3rd | 1805 | John, 163 tons ..... | 159527 | S. Shields | — 27th |
| J. Fyffe | 2nd | 1824 | Maranon, 560 tons* ... | 25832 | Dundee | — 27th |
| J. Laurence | 1st | 1821 | Sir W. Molesworth468 | ..... | Glasgow | — 27th |
| C. Cunningham | 1st | 1811 | Bengal, 583 tons ..... | ..... | " | — 28th |
| R. Thomson | 2nd | 1822 | Alexandrina, 251 tons* | 195728 | London | — 29th |
| H. C. Fraser | 2nd | 1825 | Tropic, 382 tons* ..... | 117 | " | — 29th |
| A. Consitt | 2nd | 1812 | Malacca, 589 tons..... | ..... | " | — 29th |
| G.A. Thompson | 2nd | 1817 | Lady Nugent, 664 tns* | 326681 | " | — 29th |
| C. Robertson | 2nd | 1828 | Tropic, 382 tons* ..... | 31064 | " | — 29th |
| W. Hart | 3rd | 1817 | London, 720 tons ..... | 460509 | " | — 29th |
| D. Rees | 3rd | 1820 | Elizabeth 711 tons ... | ..... | " | — 29th |
| L. Smith | 1st | 1815 | Wm. Gladstone, 252 t. | 270276 | Dundee | — 29th |
| J. Pounder | 1st | 1820 | Hindoo, 387 tons ..... | ..... | Newcastle | — 30th |

MATES.

| | | | | | | |
|---|---|---|---|---|---|---|
| J. Towers | 2nd | 1822 | Lion, 163 tons ..... | 197071 | London | Sept. 3rd |
| J. Burdis | 1st | 1827 | Artemisia, 558 tons... | 85374 | Newcastle | — 5th |
| T. Hocart | 3rd | 1825 | Janet Wilson, 293tons | 445604 | London | — 10th |
| W. B. Hall | 2nd | 1821 | Pottinger, 1600 tons... | 457962 | " | — 13th |
| D. W. H. Jones | 1st | 1824 | Christiana, 620 tons... | 451478 | " | — 17th |
| J. Friday | 3rd | 1824 | Nuney, 159 tons ..... | 6340 | " | — 17th |

| | | | | | | |
|---|---|---|---|---|---|---|
| F. Kelly | 2nd | 1827 | Mary Ann, 210 tons... | 19131 | London | Sept20th |
| J. M'Alley | 2nd | 1827 | Martin Luther, 450 t. | 168081 | " | — 24th |
| J. P. Pamphlet | 2nd | 1814 | Daring, 168 tons ..... | 16516 | " | — 24th |
| H. Fox | 3rd | 1826 | Marianne, 222 tons ... | 408519 | " | Oct. 1st |
| R. Phillips | 2nd | 1829 | Laurel, 808 tons..... | 326907 | " | — 1st |
| F. D. Frost | 3rd | 1829 | King William, 463 tons | 17043 | " | — 1st |
| W. Woodgates | 3rd | 1827 | Montrose, 650 tons ... | 198373 | " | — 11th |
| J. Macdougall | 3rd | 1824 | Idare, 279 tons ..... | 184869 | Glasgow | — 11th |
| H.Shuttleworth | 2nd | 1828 | London, 720 tons ..... | 346895 | London | — 16th |
| W. Cowan | 2nd | 1826 | Assam, 388 tons ..... | 5002 | Leith | — 16th |
| R. H. Lewis | 2nd | 1829 | Kath. Stew. Forbes450 | 19564 | London | — 18th |
| H. F. May | 2nd | 1829 | Mutine ..... | ... ..... | " | — 18th |
| G. Green | 2nd | 1830 | Cicely, 207 tons ..... | 444400 | Liverpool | — 30th |
| J. E. Coates | 3rd | 1821 | William Woolley, 200 | 327497 | London | Nov. 5th |
| J. Tossell | 3rd | 1813 | Charlotte, 535 tons ... | 188835 | " | — 5th |
| A. M'Kenzie | 2nd | 1830 | St. Vincent, 280 tons | 195972 | Liverpool | — 9th |
| J. B. Long | 2nd | 1827 | John Willm. Dare 291 | 34472 | London | — 12th |
| J. Aspil | 2nd | 1830 | Trafalgar, 250 tons ... | 29808 | " | — 16th |
| W. H. Watts | 1st | 1828 | Eliza, Pirrie, 600 tons | 137986 | Liverpool | — 17th |
| W. A. Wallace | 2nd | 1828 | Waterloo, 898 tons ... | 20876 | London | — 19th |
| E. S. Oakden | 2nd | 1828 | Themis, 278 tons ..... | 45358 | Gloster | — 19th |
| A. Clark | 2nd | 1830 | Tropic, 369 tons ..... | 12964 | Portsmouh | — 23rd |
| P. W. Woolcott | 2nd | 1826 | Clyde, 907 tons ... ..... | 402100 | London | — 26th |
| A. S. Boord | 3rd | 1829 | Constance, 578 tons ... | 183330 | " | — 29th |
| J. Robertson | 2nd | 1828 | Brahmin, 616 tons ... | 130394 | Glasgow | — 29th |

---

### Proposed Adelaide Pension Fund.

*Jan. 18th*, 1853.

Sir.—Having read in many of the daily papers, a variety of proposals for memorials in honour of the late Queen Dowager, I venture to request your powerful influence in behalf of one, which appears to me to be peculiarly appropriate to the character of that beloved and lamented Princess, as the wife and widow of a sailor. I hesitate not to solicit your kind co-operation, for you have always been ready to advocate the cause of the orphan in your widely circulated periodical.

I think that a sum of money might be raised by a general appeal to the wives and widows of all Naval, and Marine Officers, to collect shillings and half-crowns, without *refusing* larger sums, to make a fund for the benefit of the female orphans of officers of the Royal Navy and Marines; the amount which I expect would be very considerable to be invested in government securities, Flag Officers, and Captains being trustees to the same, under the name of the "*Adelaide Pension Fund.*"

A committee of ladies should be formed for receiving applications from the friends of the orphans, and investigating their claims, aided by a committee of officers of both services, for reference. The sanction of the latter being necessary for the award and amount of such pension as shall meet the exigencies of the respective applicants, till they are able to provide for themselves; and in *all* cases the pension to cease upon marriage. I am not aware of any provision for the destitute orphan daughters of naval men, excepting the Compassionate Fund, which is very limited in its application; the Royal Naval Female School at Richmond, which receives only a portion of these dependant young ladies; and the Adult Orphan Institution in the Regent's Park, which

is open to the orphans of naval and military officers, and clergymen: neither of these schools is wholly gratuitous, and I know of many cases where the widowed mother is entirely unable to pay the sum required, although it is but £12 per annum.

At the present moment there are two heart-rending cases which I may bring forward in proof of the urgent necessity of some such effort as that I now earnestly commend to the attention of the benevolent and patriotic. The first is that of the four orphan daughters of a Post Captain, the second that of the six orphan daughters of a Lieutenant of the Royal Navy, both fathers having died of cholera, and left their motherless children entirely destitute, without even the means of obtaining that education which might enable them hereafter to help themselves. These are but two of the many equally distressing cases personally known to me, and I do feel that enough has now been said to commend the cause to all British hearts, to all who feel how large is the debt of gratitude to the helpless representatives of the brave defenders of our country; and I am certain, that there is not an officer on the quarter-deck of any of H.M. Ships, who will not hail with delight the opportunity of dropping his shilling, or half-crown into the hat held to him in honour of the beloved wife and widow of the Sailor King, when her memory pleads for the unprotected daughters of (it may be) his own shipmates. As something definite is necessary to stimulate exertion, I beg to propose that the collection be begun on the 14th of February next, and that an appeal should be made which I only wait the result of this suggestion to prepare. I have no doubt, the navy agents, if solicited, would kindly consent to be treasurers pro tem, as I have always found them most willing to help forward any object that is likely to be useful to the Service.

Committing it to Him who has the hearts of all in his hands, and who has promised to be a father to the fatherless, I now subscribe myself,

Sir, your most obedient,

A Sailor's Widow without Daughters.

[We hope the foregoing may excite the attention of our readers so as to lead to some step as a commencement of the good work: we promise them it shall have all the support we can give it.—Ed.]

---

Capt. Peacock's Anti-Sargassian Conservative Paint *for preventing the growth of weed, barnacles, &c., on iron, copper, or wood bottomed vessels, and preserving wood from the attack of the Teredo Navalis.*

For some years past it has been my study to endeavour to discover some chemical compound in the shape of a pigment for coating the bottoms of iron vessels, to prevent the growth of weeds and testaciæ, the great drawback to the application of iron in ship building, and after various experiments during the last four years, embracing alterations from time to time in the atomical proportions of the ingredients used, I have at length arrived at a mixture which adheres well, dries quickly, closely resembles the colour of copper, is inexpensive, simple in its application, and appears after a series of trials upon sea going vessels, as well as on boats in harbour, to answer the purpose completely.

Having ascertained that it prevented the accumulation of grass, barnacles,

&c., on iron, copper, and wood, I was induced to try its effects on the latter for preventing the attack of the "teredo navalis", and for this purpose I caused two pieces of wood cut from the same block to be screwed on to a plate of iron, one piece coated with my "Anti-Sargassian Paint," the other not, and sunk the plate in the river Itchen off the entrance of the Southampton Docks, on the 20th of November, 1848.

On the 1st of January, 1849, I found that the piece not coated had already began to be attacked, whilst the other piece remained quite perfect, and I then caused a similar plate to be prepared with two pieces of wood, cut also from the same block, one painted with two coats of red lead, the other with two coats of my composition, and sent it out on the 2nd of January, 1849, to Bermuda, where it was sunk in the Dockyard camber, or open basin at Ireland Island, on the 21st of the same month, and not touched until taken up again on the 4th of October following, (a period of eight months and a half,) by the same gentleman who laid it down, namely, Captain W. Vincent, commanding the Royal Mail Steam ship Severn, and a master in H.M. Navy, who delivered it to me at this port on the 22nd of the same month. The piece of wood painted with red lead was found to be completely eaten through and through by the "teredo," and the greater portion of it converted into a mass of tubercle shell, whilst that coated with my composition remained as perfect as the day it left Southampton. The state of those portions of the plate also which had been coated with it were highly satisfactory, having merely a thin coralline incrustation over the surface and free from oxidation, whilst those parts not so coated were covered with weed, shelly vermiculi, coral, actiniæ, and other zoophites, with occasional blotches of rust.*

After the plate sunk in the Itchen had been down four months, it was examined, and the piece of wood not coated was found perforated at the ends and eaten at the surface with small holes all over to the depth of one eighth of an inch, presenting the appearance of old worm-eaten furniture, whilst that painted with my composition was intact in every part, and perfectly free from weed or barnacle, together with those portions of the iron plate that had been coated with it.

I have named my composition "Anti-Sargassian" from the Spanish word "Sargazo," meaning sea-grass or weed. The "Sargasso," or Sargassian Sea, well known to all navigators who have crossed the Atlantic, is a large tract of ocean lying between the latitudes of from 20° to 36° N., and the longitudes 25° to 40° W., where the weed (fucus natans) is so thick in some parts as to impede a vessel's progress in light winds, presenting to the eye from one margin of the horizon to the other the appearance of a boundless inundated meadow. Abundance of small swimming crabs, pediculi, pipefish, hypocampi, minori, &c, exist amongst this weed, which is also covered on its berries and branches with minute zoophites and coralline incrustations, and I have frequently picked up pieces of wreck and broken spars amongst it covered with barnacles, and eaten through with the "teredo navalis."

Columbus in his first voyage of discovery passed through a portion of this sea subsequently named by him "El mar de Sargazo", and it is recorded that the Phœnicians became acquainted with this "weedy sea" in their early voyages of discovery to the Atlantides, or Hesperedian Islands of Plato. I have no doubt but that vessels passing through this "grassy sea" receive

* This specimen was forwarded to the Editor of the *Nautical Magazine* for his examination, and subsequently to the Admiralty, and office of the Surveyor of her Majesty's Navy at Somerset House. [On inspecting it, there could be no doubt of the success of Capt. Peacock's paint whatever; the protected part was remarkably clean while the other was as remarkably destroyed.—Ed.]

on their bottoms and wales above the copper, the germs both of weeds and zoophitic animals. Hence the clusters of barnacles, &c., found adhering to them on arrival in Europe, both on the copper and bends, and the latter are too frequently found to be pierced by the "teredo," although the vessel may have loaded in a port said to be free from this destructive animal.

The creature which commits such havoc on piles, buoys, boats, &c., in the Southampton waters and other ports of the United Kingdom, does not appear to me to belong to the vermicular class, but is a small insect resembling a weeval; it forms no shelly concretion like the true "teredo navalis," and confines its ravages to the surface, although gradually destroying the wood, leaving only the knots. A similar insect exists in the Bay of Callao, port of Lima, and in Halifax, Nova Scotia, which is found to be very destructive to piles, buoys, &c.

I am, Sir &c.,
GEORGE PEACOCK, *Dock-Master, Southampton.*

*Peninsular and Oriental Steam Navigation Company's Offices,*
*London, Jan. 15th,* 1850.

Sir.—In compliance with the request contained in your note of yesterday's date, the Managing Directors instruct me to forward to you herewith, copies of the reports which have been made to them by the Company's Superintendent at Southampton, of the results which have hitherto been attained by the application of your "*Anti-Sargassian*" paint, to the bottons of iron steam vessels belonging to this Company.

I am, &c.,
RICHARD ANDREWS, *for the Managing Directors.*

*Peninsular and Oriental Steam Navigation Company's Offices,*
*Southampton, 1st November,* 1849.

Gentlemen.—In reply to your letter of the 30th ultimo, I beg to forward a report on Mr. George Peacock's composition for the bottoms of iron ships. The first ship regularly coated with the composition, was the "*Ripon*" on the 3rd June, 1849, when she was done on the starboard side with one coat over a coat of the "Patent Alkali Company's" purple brown paint, the original red lead not being scraped off; the opposite side, or *port side*, was done with the usual two coats of red lead and arsenic. She came out of dock on the 8th June, and left for Alexandria on the 20th, returning to Southampton about the end of July, at which time Mr. Peacock's side was quite clean, whilst the opposite side was covered with long thick grass; which was then scraped off four feet down from the water line, and re-coated with red lead, the ship being heeled for the occasion. She left for Alexandria again on the 20th of August, and before leaving that port it was found necessary again to heel her and scrape the *port side* as before.

On her arrival at Southampton (4th of October) she was docked, when the *port side* was found to be *again covered all over* with long thick grass and bunches of barnacles, whilst the *starboard side* was quite free from grass, although there were a few small barnacles here and there upon it. This side had not been touched since the composition was laid on in June; the plates on both sides were found perfectly free from oxidation.

The *Pacha* was done with one coat of Mr. Peacock's Composition in July on both sides over one coat of red lead. She proceeded on her usual Peninsular voyage and returned to this port *quite clean*, remaining so (where

visible) up to the hour of leaving, and a letter from her Commander received a few days ago from Lisbon, states that he saw down to the keel in clear water at Vigo, and that she remains perfectly clean below. The *Euxine* was done with it in the very early part of August, over a coat of red lead, and left for Constantinople on the 29th of that month; she was docked on her return (11th of October) for the express purpose of examining her bottom, when it was found to be perfectly clean and free from oxidation, not even requiring to be washed down. When the *Sultan* was docked, the early part of September, a coat of Mr. Peacock's composition was laid on upon trial, at his own request, without any intervening coat of red lead or other paint, She left for Constantinople on the 29th of September, is due here on the 6th inst, and will be docked about the 8th, for the express purpose of examining her bottom.* The remainder of the Company's Iron ships have been all done with Mr. Peacock's composition I am of opinion this composition is by far the best yet produced for keeping clean the bottoms of iron steamers, being inexpensive and a decided preservative of iron. As to the number of months it will retain its powers, remains yet to be seen, one great advantage is that the composition dries as fast as it is laid on, and is about the same price as red lead, considering the difference of quantity required.

I am, &c.,

J. R. Engledue, *Superintendent.*

*To the Managing Directors of the Peninsular and Oriental Steam Navigation Company.*

*Peninsular and Oriental Steam Navigation Company's Offices, Southampton, Jan. 9th,* 1850.

Gentlemen.—The "*Pacha*" coated with Captain Peacock's composition is now in dock, and I have to report that the bottom after *six months*' trial, exhibits the appearance as follows:—

From the keel to seven feet upwards, the ship is as clean as the day she was coated, and no appearance of rust beyond that which is usual when coated with red lead only. For about three feet from the seven feet mark upwards, or say a foot below her light load line the grass had grown half an inch, but no barnacle or other foreign substance, the whole of which could have been scrubbed off and recoated by listing the ship.

I consider now the value of this composition fully established.

The commander reports to me the speed to have been kept up during the whole period, or in fact she had gone *faster* than before.†

We have never been able to keep any of our iron vessels clean, for a longer period than a month, or six weeks, until the application of Captain Peacock's composition.

The "*Sultan*" just now arrived, and in fact the whole of our iron vessels upon arrival, present a most satisfactory appearance, and the commanders unanimously report their voyages accelerated by the use of this composition.

I am, &c.,

J. R. Engledue, *Superintendent.*

*To the Managing Directors, London.*

* The *Sultan* was docked on the 8th of November, examined by a government officer from Somerset-House, and found perfectly clean from her water-line to her keel.—G. P.

† The surface of the composition, shortly after immersion, becomes slippery like the back of a fish.

## Nautical Notices.

### Four Shoals in the Main Ship Channel over the Nantucket Shoals.

*Coast Survey Office, Washington, Nov. 30th, 1849.*

Sir.—I have the honor to transmit herewith a report from Lieut. Com. Charles H. McBlair, United Service Navy Assistant in the Coast Survey, shewing the position of four shoals in the main Ship Channel on the Nantucket Shoals, discovered in the course of his hydrographic operations during the last season. The sketch shewing the position of these discoveries is nearly ready for distribution, and I would respectfully request authority to publish the report.

Very respectfully, yours,

A. D. Bache,

*Superintendent of U.S. Coast Survey.*

*To the Hon. W. M. Meredith, Sec. of the Treasury.*

*U.S steamer Bibb, Wellfleet Bay, Oct. 8th, 1849.*

Sir.—I beg leave to report that we have recently discovered four shoals lying on what is known by the pilots as the main Ship Channel over the Nantucket Shoals. They consist, as far as we have yet been able to determine, of sharp and abrupt ridges of fine white sand, beginning at the most western shoal, and designating them numerically as they lie east of each other, it may be stated that numbers one and three stretch in a northwesterly direction, the former being about a quarter and the latter a sixth of a mile long. The remaining two designated by numbers two and four are very small spots, somewhat circular in shape. The smallest soundings,, reduced to mean low water mark, shew on No. 1, fourteen feet; on No. 2, fifteen feet; on No. 3, fourteen feet; and on No. 4, nine feet. The bearings and distances of the shoalest spots on each, from points determined on Nantucket Island, are as follows:—

No. 1, from Great Point Light, N. 86° 30′ E., (true) distant 9·5 nautical miles. No. 1, from Great Sankaty Head, N. 39° 58′ E., (true) distant 9·6 nautical miles. No. 2, from Great Point Light, N. 85° 40′ E., (true) distant 10·2 nautical miles. No. 2, from Sankaty Head, N. 42° 18′ E., (true) distant 9·7 nautical miles. No. 3, from Great Point Light, N. 87° 00′ E., (true) distant 10 3 nautical miles. No. 3, from Sankaty Head, N. 43° 55′ E., (true) distant 9·6 nautical miles. No. 4, from Great Point Light, N. 86° 45′ E, (true) distant 10·7 nautical miles. No. 4, from Sankaty Head, N. 44° 50′ E., (true) distant 9 9 nautical miles. These shoals can readily be discovered by the rip (or ripple) formed on them by the tides at all stages, except during slack water, when they can no longer be detected by this means; but in daylight they exhibit the usual discolouration of water. Besides the shoals already noticed, I subjoin the bearings and distances of two spots of small extent, on which we found eighteen feet of water at reduced soundings. One bears from Great Point Light N. 85° 40′ E., (true) distance 9·8 nautical miles; and from Sankaty Head, N. 40° 16′ E., (true) distance 9·4 nautical miles. The other bears from Great Point Light, N. 85° 10′ E., (true) distance 11·2 nautical miles; and from Sankaty Head, N. 45° 25′ E., (true) distance 10·5 nautical miles.

I am, respectfully yours,

C. H. McBlair.

*To Prof. A. D. Bache, Superintendent U.S. Coast Survey.*

*Shipping Gazette, Jan. 1st, 1850*

Galveston.—The light-ship for Galveston Bar is moored in 6½ fathoms water, bearing E.½N., and distant about 1¼ miles from the bar at the entrance of Galveston Harbour. Vessels wishing to anchor off the bar should not anchor to the westward of the light ship, nor in less than 6½ fathoms. Vessels lying off and on near the light-ship waiting for an opportunity to cross the bar, or for a pilot, should not stand into less than 6 fathoms water, and should keep to windward of the light-ship.

*Shipping Gazette, Dec. 26th,* 1849. H. Delesdernier, Pilot.

---

Bun Shoal, *China Sea.*—We have received the following extract from the journal of Mr. Hogg, of the Kurramany, a Bombay ship of 1200 tons:—October 7th 1849.—At 10h. 30m. A.M., ship running with all studding sails out, wind at N.b.E.; steering S. to pass to the westward of Poulo Sapata, saw a rock or shoal ahead, distant half a mile from the ship; put the helm aport, and passed a quarter of a mile to the westward of it. Went aloft to examine, as accurately as I could, the extent of the shoal, which did not exceed one quarter of a mile. There was no sea on to break over it at the time, but by the colour and motion of the water, there could not have been more than 1 or 1½ fathoms over it (then half ebb). When Poulo Sapata bore S.b.E. ½ E., Ceicer de Mer Island N.b.W. ½ W., and the Catwick S.S.W., the shoal bore E.N.E. ½ E., distant three quarters of a mile, giving it in lat. 10° 17′ N., and long. 108° 57′ 30″ E. Having no account of such a shoal in any of the books or charts in my possession (including the publication of 1848), I am led to suppose it has escaped the vigilance of all who have passed and repassed this way before; if so, I shall claim the prerogative of naming it Bun Yoosun Shoal, in honor of the owner of the ship Kurramany.—*Shipping Gazette.*

---

Cape Sierra Leone.—The Lighthouse stands on the extremity of the Cape, and is 69 feet from the base to the top of the lantern. It bears from the Carpenter Rock E. ½ S. by compass, and from the western edge of the Middle Ground S.W.½S.: vessels therefore coming from the westward should be careful not to bring the light to bear more to the eastward than E.S.E. ½ E., and coming from the southward, not to alter course until the light is on that bearing; and coming from the northward, should not bring the light more to the westward than S.S.W. ½ W., until King Tom's Point comes in one with the centre barrack S.S.E. ¾ E., to avoid the Middle Ground.

*Sierra Leone, April* 27, 1849. H. D. Black, *Master, H.M.S. Waterwitch.*

Cape Sierra Leone lighthouse lat. 8° 30′ N., long. 13° 17′ 45″ W.

Bearing of the Carpenter Rock W. 13° 7′ S.

W. H. Petch, (*True Copy*). W. B. Monypenny, *Commander.*

*Shipping Gazette, Dec.* 25, 1849.

---

Iron Lighthouse on the Wolf Rock.—Among the recent additions of Lighthouses on our coast is one of a novel description by Mr. Walker, the Engineer to the Trinity-House. Although we presume it is not yet lighted, having met with no such announcement, the following notice of it in the Annual Report of the President of Civil Engineers will be useful as apprizing seamen of its erection. It may be considered as experimental, and should it prove successful, which from the high character of the engineer there can be little doubt, its economy will, we trust, be the means of recommending it

for other similar localities on our coast where lights are wanted. It is thus alluded to in the President's report:—

"In conjunction with these maritime works may be mentioned two light-houses, both possessing remarkable features. The first is an iron structure, erected on the Bishop's Rock by Mr. Walker. It is situated about thirty miles from the Land's End (Cornwall) and four miles due west from the St. Agnes Lighthouse, which would probably not have been constructed, had our ancestors possessed the modern facilities for the execution of works of this nature. The position is more exposed to the force of the Atlantic, than the famed Eddystone Lighthouse, and the surface of the rock is of such an outline as scarcely to admit of a solid building. It was, therefore, determined to erect such a structure, as should offer little or no opposition to the waves, and bear a light at such an elevation as to render it extensively useful. Six hollow cast iron columns, with a strong bar of wrought iron in each, sunk to the depth of five feet into the rock, forming at the base a hexagon thirty feet in diameter, and tapering upwards, support at a height of about one hundred feet, the dwelling of the three light-keepers, with stores and provisions for four months, the whole being surmounted by the lantern. The access to the dwelling is by a centre column of cast iron, containing a spiral staircase. The difficulties overcome in the execution of this bold design can scarcely be appreciated without a more detailed account of it, which, however, I trust, will be laid before you this session.

"The other is a stone lighthouse called the Skerryvore, erected by Mr. Alan Stevenson, on a small desolate rock, situated about eleven miles W.S. W. of the Island of Tyree, and fifty miles from the mainland of Scotland. The rock is exposed to full fury of the North Atlantic, and is surrounded by an almost perpetual surf. The talent and perseveranee of the Engineer enabled him, however, to complete, without loss of life, or limb, great as were the difficulties he had to contend with, a structure far exceeding the dimensions of the famed Eddystone and Bell Rock Lighthouses, their relative heights being, the Eddystone 68 feet; the Bell Rock 100 feet; the Skerryvore 138 feet 6 inches."

[An account of the Skerryvore was given in our vol. for 1848.]

---

## New Books.

THE PRACTICE OF NAVIGATION AND NAUTICAL ASTRONOMY.—*By Lieut. H. Raper, R.N. Third Edition.*—Bate, London.—Second notice.

Resuming the thread of our observations on this work from our last number, in which we concluded with that valuable table "Maritime positions," and its additional information conveyed by means of symbols, we now arrive at the subject of lights, the importance of which to seamen is of no secondary kind. And if so, the phraseology used in their description is no less worthy of attention. Like many subjects in Navigation they have undergone great improvement of late years, but not so it would appear the manner in which their particulars are made public. There is much truth in the following extract.—

"The necessity for increasing the number of lights, has rendered it very difficult to find means of distinction, and this evil has been augmented by the carelessness or pedantry of the descriptions, which are sometimes such, that it

is scarcely possible to make out what they mean. Indeed, instead of bearing carefully in mind that the increasing niceties of distinction in the lights themselves demand with greater urgency than ever, all possible clearness and simplicity of language, the compilers of these documents indulge in a laxity of expression and a confusion of terms which would be reprehensible anywhere, but is altogether without excuse in the account of a light. For, as the object of a coast light is not merely purposes of a local nature, but also to remove, to vessels in the offing, the feeling of uncertainty as to their position, which is aggravated by the gloom and obscurity of the night, no care can be too great, no endeavour too strenuous, to establish the simplest and most unmistakeable means of identification, and to avoid, or even to conceal, all allusion to extraneous matters, which, if they do not altogether mislead, must tend, by increasing the multiplicity of details, to perplex. And certainly if there is any kind of composition that should exact the severest attention to perspicuity, whether on account of the risk of life, and the valuable interests involved, or of the slender attainments of the class of persons for whose use these documents are supposed to be written, it is the description of lights on a coast.

"We shall now give some examples in which these obvious and indispensable considerations have been utterly disregarded.

"The description of the Start Light (Orkneys) runs thus:—'The light *brilliant and fixed*, is visible from every point of the compass.....The reflections are made to revolve once in every two minutes, exhibiting light one minute and disappearing the next; the light increases from darkness to full strength during one minute, and during the next declines in strength to total darkness.'—Sailing directions for the North Sea, 1848, p. 129.

"This light is called *fixed*, but the account describes, in a clear and simple manner, a light of that appearance to which the term *revolving* is now almost universally applied; and this utter contradiction of terms is quietly allowed to exist, though it is known that the mistake of one light for another is fatal.

What Sailing Directions are quoted above does not appear, but, that the Start is a revolving light most seamen know, and the "Annual List of the Northern Lighthouses" testifies. That such an account should appear in 1848 is indeed very discreditable. We come next to something no less extraordinary and it is impossible to dissent from the very just reproach which our author bestows on it. Indeed, how so much really unintelligible matter found its way into print it is hard to say.

"The following description, from 'authority' of the new light, or Faro at Coruna, after stating 'that a new cata-dioptric revolving apparatus of the third order' is to replace the former light, goes on,—

"'The light is fixed, varied by lustres;' the fixed light visible 12 and the lustres 20 miles. 'Within the 12 miles the Faro will exhibit the following aspects, the fixed light faint for 107 seconds, eclipse for 39 seconds, lustre 13 seconds, eclipse 30 seconds; the fixed light faint again returning. Beyond 12 miles the lustre will be seen only for the space of some 7 seconds duration, a complete eclipse following for 3 minutes, the period in which the revolution is effected, when the lustre will again appear as before,' &c.

"We do not dwell on the inconvenience, not to say frequent impracticability, to a seaman, of verifying watch in hand, all these intervals of 107, 39, 13, and 30 seconds respectively, because we take it for granted that the application of these teasing details to actual service, never entered the head of any person or persons; nor, as the document is a mere translation, shall we be hard upon such phrases as 'a *space* of so much *duration*,' to which most readers would prefer a more tangible equivalent. Had, however, this collision of the terms 'fixed,' 'varied,' 'eclipse,' and 'a fixed light faint again returning,' been instituted for the express purpose of mystifying or caricaturing the whole lighthouse vocabulary, it could scarcely have been more successful.

"But when on reading this account of a 'fixed light,' we learn, at the conclusion, that beyond a certain distance it disappears in *total* eclipse for 3 minutes, and then reappears as before, we confess that our astonishment at the flexibility of language in the hands of these writers knows no bounds.

If the foregoing is bad and altogether discreditable we get from bad to worse. "Bad as this is" says our author, "a worse instance remains to be quoted."

"The following unparalleled instance of mystification in lighthouse phraseology will show the manner in which the Authorities that are charged with the administration of our lighthouses acquit themselves of their task. Let the reader as he labours through the following description of the light at Madras, call to mind some of the circumstances under which it may be necessary to identify with as little loss of time as possible, the kind of persons addressed, and the conveniences at hand on board ship at night, in bad weather for measuring *ratios*.

"After an introduction we read,—'The light is of the flashing description, and the duration of the flashes to that of the eclipses or dark periods is in the ratio of 2 to 3; but as the nature of the motion is reciprocating instead of rotatory, the above ratio merely expresses the average proportion of light and the dark intervals, which are themselves variable, according to the position of the spectator. The rapidity of movement is so adjusted, that the duration of the flashes will vary from 0 seconds to 48 seconds, and that of the eclipses from 0 seconds to 72 seconds; the sums of the duration of light and darkness bearing however in every position the constant ratio of 2 to 3."

"This singular light then is to be identified, not, as heretofore, by the absolute number of seconds which it is visible or invisible, but by the ratios of the intervals of light and darkness. The position of a ship is to depend on the measure of a ratio, and this too (as far, at least, as my humble endeavours have succeeded in comprehending the learned description) is a variable one!

"I would call the reader's attention to the term 'reciprocating' and then to the words 'but as the nature,' &c., for either the rest of the sentence is a *non sequitur* or the reciprocation in question has the wonderful faculty of exhibiting 'average proportions.'

"Who would suppose that this document was the grave and authorised production of a nation distinguished for its skill and business-like dispositions in maritime affairs.

"No doubt common sense will in due time effect a reformation in these matters; in the meanwhile it is lamentable that there is not some authority to exercise a wholesome control over such blundering and pedantic compositions. If it is really necessary to accompany accounts of lights with architectural and constructive details, which are properly, questions of engineering, and have no more to do with navigation than the chemical nature of the cement of the stones or the specific gravity of the oil, let them not, for the sake of general utility be suffered to set aside altogether, as they do now, the *working* or *nautical description*, as if the fact were entirely overlooked, that it is for seamen alone that lighthouses are built."

Something has been said lately of the Establishment of a Lighthouse Board. Here is tolerable proof of the necessity of lighthouse information being properly made public, independent of all the rest of the very important considerations which such a Board would have to undertake. And with this our limits again remind us that we must defer our concluding notice of this work for our next.

ANNUAL LIST OF NORTHERN LIGHTHOUSES, BEACONS, AND BOUYS FOR 1850.—*By A. Stevenson, F.R.S. Engineer &c.*,—A. & C. Black, Edinbro',—Longman, London.

The honour of being the only Lighthouse Board in this country, that takes the pains to diffuse among Seamen a knowledge of its proceedings by the publication of an Annual list, belongs *exclusively* still to the Board of Northern Lights. Our neighbours the French, for several years past, entertaining the same just notions of these matters have supplied the seaman with an Annual Authentic record of their lights, &c., for reference. But if the same person wishes to know anything of the Lights on the coasts of *England*, or *Ireland*, he must still depend on the information which his charts and directions give him! How imperfect, and incorrect these are, Mercantile *Seamen* find to their cost.

And yet there are Boards entrusted with these matters, whose proceedings therein cannot be made too public, or too easy of access to him whom it most nearly concerns, viz. the seaman. With pleasure then we refer him to the list of the Scotch Lights, at the end of our present number, and hope that we may be able on some not distant day, to give a similar statement from the Trinity House of London, and the Ballast Office of Dublin. The Scotch Board may be taunted as being made up of Lawyers (*Scotiæ* advocates) who are Sheriffs of the coast counties, with some Glasgow Baillies;* but these gentlemen, we repeat, have set their brethren of the *South* and the *West* an example worthy of imitation. Let us hope that the projected general Lighthouse Board will look into these matters, and prove itself the Seaman's real friend, by placing in his wayward path their own *authentic* information, without obliging him to depend on the second-hand productions of mere chartsellers With the view of assisting in giving publicity to this useful "Annual List" of the Northern Lighthouse Board, we may add that, it is to be obtained at Liverpool, of Deighton and Laughton; at Bristol, of H. C. Evans; at Newcastle, of Finlay and Charlton; at Hull, of W. Stephenson; at Sunderland, of Vint and Carr; at Glasgow, of D. Robertson; at Greenock, of J. Hislop; at Dundee, of F. Shaw; at Aberdeen, of A. Brown and Co.; at Leith, of W. Reed and Son; at Wick, P. Reid. We wish we could say the same for the other Boards.

---

NARRATIVE OF THE WRECK OF THE "FAVORITE" *on the Island of Desolation, detailing the adventures, sufferings and privations of John Nunn; an historical account of the Island, and the whale and seal fisheries, with a chart and numerous wood engravings.—Edited by W. B. Clarke, M.D.*

A useful addition to onr Nautical Literature from an unlooked for source. We shall take a future opportunity of referring to it, our object now being to make it known for the benefit of the author, who is evidently a deserving seaman, disabled in his profession, and striving to maintain himself and family in respectability.

---

## NEW CHARTS.

*Charts and Books Published by the Hydrographic Office, Admiralty, and Sold by R. B. Bate, 21, Poultry, in Jan.* 1850.

| | s. | d. |
|---|---|---|
| DIRECTIONS FOR THE ENGLISH CHANNEL, *by Capt. M. White, R.N. Fourth edition*, 1849, . . . *with plates* 10*s. without* | 3 | 0 |

* See Shipping Gazette, Jan. 17th.

ST. NICOLAS ISLAND ANCHORAGE, *Cape Verd Islands, corrected by Mr. Krabbe, R.N.*, 1849 . . . . . 0 6

PORT HENRY, *Western Patagonia, by Lieut. Skyring, R.N.*, 1834 0 6

TORRES STRAIT, *the Western Entrances of Endeavour Strait, & Prince of Wales Channel by Captains Blackwood, Stanley, and Lieut. Yule, R.N.*, 1844-48 . . . . . 1 6

E. DUNSTERVILLE, *Master R.N.*

*Hydrographic Office, Jan. 19th*, 1850.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory.
From the 21st of December, 1849, to the 20th of January, 1850.

| Month Day | Week Day. | Barometer. In Inches and Decimals. | | Thermometer In the shade. | | | | Wind. Quarter. | | Wind. Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | F. | 30·44 | 30·50 | 32 | 32 | 30 | 36 | NE | NE | 2 | 2 | bcs 2] | ophs [3 |
| 22 | S. | 30·54 | 30·56 | 32 | 33 | 30 | 34 | NE | NE | 2 | 4 | o | ops [3] |
| 23 | Su. | 30·57 | 30·58 | 28 | 34 | 28 | 35 | NE | NE | 3 | 3 | b | bc |
| 24 | M. | 30·42 | 30·40 | 30 | 33 | 26 | 34 | W | E | 1 | 1 | ops 2] | opd 3] [4 |
| 25 | Tu. | 30·55 | 30·47 | 32 | 33 | 29 | 35 | NE | NE | 1 | 1 | bc | omd 4] |
| 26 | W. | 30·19 | 30·04 | 36 | 40 | 34 | 42 | W | W | 1 | 1 | ogf | ogf |
| 27 | Th. | 29·51 | 29·47 | 37 | 38 | 37 | 40 | NW | NW | 8 | 6 | qbcm | qbcm |
| 28 | F. | 29·36 | 29·46 | 23 | 25 | 22 | 26 | N | NW | 8 | 6 | qbcps [2 | qbc |
| 29 | S. | 29·54 | 29·61 | 26 | 35 | 20 | 36 | NW | NW | 2 | 5 | bcm | qops [3 |
| 30 | Su. | 30·00 | 30·10 | 32 | 36 | 30 | 36 | N | N | 2 | 2 | bcps [1 | bc |
| 31 | M. | 30·29 | 30·32 | 32 | 35 | 30 | 36 | N | N | 1 | 1 | bcm | bcm |
| 1 | Tu. | 30·24 | 30·26 | 26 | 34 | 25 | 35 | W | W | 1 | 1 | bcm | bcm |
| 2 | W. | 30·21 | 30·26 | 32 | 35 | 29 | 38 | W | W | 1 | 1 | bcm | bcm |
| 3 | Th. | 30·20 | 30·13 | 34 | 38 | 32 | 40 | SW | SW | 1 | 1 | bc | og |
| 4 | F. | 29·76 | 29·59 | 44 | 46 | 40 | 46 | W | SW | 1 | 3 | o | bc |
| 5 | S. | 29·46 | 29·46 | 32 | 35 | 31 | 37 | W | W | 2 | 2 | bm | bm |
| 6 | Su | 29·43 | 29·47 | 30 | 33 | 27 | 34 | NE | NE | 3 | 2 | bcs 1] | b |
| 7 | M. | 29·93 | 30·03 | 27 | 32 | 25 | 34 | N | N | 2 | 2 | bm | b |
| 8 | Tu. | 30·31 | 30·32 | 27 | 34 | 22 | 36 | NE | NE | 2 | 2 | bcf | bc |
| 9 | W. | 30·23 | 30·18 | 32 | 33 | 31 | 35 | NE | NE | 1 | 1 | ops [2 | od [4] |
| 10 | Th. | 29·92 | 29·86 | 32 | 33 | 30 | 34 | NE | NE | 2 | 2 | od [2] | od (3) (4) |
| 11 | F. | 29·82 | 29·80 | 29 | 30 | 28 | 31 | E | E | 2 | 3 | o | o |
| 12 | S. | 29·88 | 29·92 | 28 | 30 | 27 | 31 | NE | NE | 2 | 4 | bc | os |
| 13 | Su. | 30·00 | 30 00 | 29 | 30 | 28 | 31 | NE | NE | 2 | 2 | os 2] | o |
| 14 | M. | 29·78 | 29·69 | 28 | 29 | 24 | 30 | E | E | 5 | 8 | qbc | qo |
| 15 | Tu. | 29·39 | 29·35 | 26 | 25 | 25 | 26 | NE | NE | 5 | 5 | qos 2] | qo |
| 16 | W. | 29·44 | 29·46 | 28 | 31 | 95 | 32 | NE | NE | 2 | 1 | os [2] | os (3 |
| 17 | Th. | 29·81 | 29·38 | 31 | 34 | 29 | 35 | NE | N | 3 | 2 | o | o |
| 18 | F. | 30·00 | 29·86 | 29 | 33 | 29 | 35 | S | S | 2 | 2 | of | osr 3) (4 |
| 19 | S. | 29·47 | 29·60 | 42 | 42 | 32 | 45 | SW | W | 2 | 4 | o | ors (4) |
| 20 | Su. | 30·04 | 39·14 | 28 | 28 | 27 | 29 | NE | E | 3 | 2 | os [1 | o |

December 1849.—Mean height of the barometer =29·940 inches; mean temperature =37 9 degrees; depth of rain fallen 2·13 inches.

## NOTICE TO CORRESPONDENTS.

The following papers have been received since our last—That on "Misrepresentations" and others from Bristol. On the Gulf of Genoa and others from Capt. Leighton. On Collisions from Capt. Biden. On the Slave Trade, interminable subject! and several others.

The length to which the Arctic Papers have extended oblige us to exclude much other matter.

THE

# NAUTICAL MAGAZINE

AND

# Naval Chronicle.

MARCH 1850.

## Remarks on the Approaches to Taranaki, or New Plymouth, *New Zealand.—By Mr. Evans, Master and Assistant-Surveyor, H.M.S. Acheron.*

The settlement of Taranaki, or New Plymouth, is strikingly marked from seaward by a group of Sugar-Loaf Isles, fronting it westwardly, and by its proximity to that snow-capped and Alpine-featured peak, Mount Egmont. This remarkable mountain reaching an elevation of 8,270 feet, rises abruptly from a considerable level, in a cone-like profile, with a flattened summit, which is almost perpetually covered with snow.

The settlement flag-staff in lat. 39° 03′ 35″ S., long. 174° 05′ 31″ E., is immediately above the landing-place, and close to the occupied portion of the town-site. Mount Egmont bears S. 1° 12′ W., true, 14·45 nautical miles, and Moturoa, the highest of the Sugar-loaf Islands, N. 77° 43′ W. 2·05 miles from this position.

The roadstead of New Plymouth extends from the Sugar-loaf Islands to a line north of the flag-staff : at an average distance of $1\frac{1}{4}$ mile from the shore there is an uniform depth of 10 to 12 fathoms: it is, however, not prudent for vessels of any size beyond coasting craft to come within this depth, as the bottom becomes very foul, with a reef, and an irregular attached rocky ledge extending out a long half mile from the shore, a short distance westward of the flag-staff. This reef and ledge breaks in moderate weather, and shelters the landing-place from the prevalent S.W. winds and swell.

The best anchorage is in 12 fathoms at low water, with the Wesleyan Mission School (a remarkable building standing on elevated ground midway between the town and Sugar-Loaf Islands,) in a line with Mount Egmont, bearing S. 18° E. magnetic, and the Seal Rock midway between the two large Sugar-loaf Islands bearing S. 41° W. magnetic. The flag-staff will then be in a S. 61° E. magnetic direction, distant $1\frac{3}{4}$ mile. The roadstead is open to all winds from S.W., round by N. to E.N.E. (18 points of the compass.)

The general nature of the bottom appears to be rocky ledges covered with a thin coating of dark coloured sand; but north of the settlement it is strewed with large boulders and shingle. Vessels often experience difficulty in weighing from the foul ground below the sand: a stout crown rope to ensure canting the anchor should always be employed. There is at all times a swell in the roads, and a vessel must be prepared to leave with the first symptom of a N.W. wind.

Formerly a set of moorings capable of holding a ship of the line, were laid down by the New Zealand Company to show the best anchorage. From the constant friction of a portion of the bridle-chains, ($2\frac{1}{4}$ inch iron,) on the hard bottom, and possibly a chemical action from the peculiar volcanic character of the district, the links were worn to nearly one-half their original stoutness in two years, and parted while a ship of 500 tons was riding by them. A duplicate set of moorings, and two buoys are now lying at the landing-place; but the original mooring anchors, of about 70 cwt., and ground chains have never been weighed.

These moorings were far too large, and in the event of its being found expedient to lay down others, anchors of 35 cwt. with proportional chains would suffice. The present trade of New Plymouth scarcely warrants this outlay, neither can it support the constant expense and attention that moorings thus situated demand. It must also be observed that the settlement offers no resource for any repair of iron work, in the event of the moorings requiring it; and that for their examination a large sailing vessel must be especially equipped for this service. This vessel whilst so engaged has no harbour of refuge within 115 miles. The advantages to be derived from moorings in so exposed a situation are very problematical, an organized boat establishment would prevent the necessity of large vessels risking their ground tackle by anchoring at all, and prove really beneficial to the general trade of the settlement, at a mere comparative trifling expense.

In general, landing can only be effected in a whale-boat, or surf-boat, for general purposes, and under the guidance of an experienced resident boatman. The French government establishment consists of a beach-master and pilot, and a coxswain to take charge of the cargo-boats, (capable of carrying about three tons each) with a whale-boat for general purposes. These boats perform all the duties of the settlement, both public and private; they are manned as occasion requires by idlers, and labouring men seeking a job, natives or European as chance may offer, who are remunerated according to the number of hours employed. An experienced boat's crew can never be got together under the existing

arrangement; time is lost, and the service often inefficiently performed. The boats are well adapted for the service, are carefully looked after, and have hitherto been fortunate enough to escape accident.

A warping-buoy is laid down a short distance from the landing place, and is useful for hauling the cargo-boats through the surf. The buoy kept in a line with the flag-staff is the best lead to the landing-place.

The Sugar-Loaf Islands (in Moari-Nga-Motu) are a remarkable and appropriately named group; the most lofty and striking of these Paretutu rises from a low point of the adjacent main as a sharp cone, to an elevation of 503 feet. The inner islet (Moturoa) is similar in character and 266 feet high; whilst the outer (Motumahanga) is saddle-backed, with a conical summit 190 feet high. There is a deep passage between these islands, avoiding Barrett's Reef (a half tide rock) lying half a mile westward of Moturoa, and passing on either hand of the Seal Rocks, a cluster of some extent, the highest part having thirty-five feet elevation. With regard to the general character of the wind and weather, I have taken the report of the pilot and beach-master, and am indebted to the resident magistrate, and New Zealand Company's agent for much information.

During the summer months from November to February, there are pretty regular land and sea breezes; the latter from the south-west, and fiery light winds off the land during the night.

In the winter season the weather is variable; but the spring and fall of the year bring the strongest gales; S.W. or W.S.W. is the prevailing quarter; these winds throw a heavy swell round the Sugar-Loaf Islands into the anchorage. South-east is the fine weather quarter, and with this wind Mount Egmont is usually clear. North-west winds which blow directly on shore, seldom blow home, and are generally preceded by a swell from that direction: they do not come on suddenly, but back round from the north-east and north.

From the beach-master's report of several years experience, he considers that a boat may be launched from the beach six days out of the seven, and the cargo-boats worked five out of the seven, on an average.

It is high water on full and change days at $9\frac{1}{2}$ hours when the range of tide is 12 feet. In the offing strong currents are experienced influenced by the winds; after a S.W. gale during my visit to the settlement, the Colonial brig found difficulty in working against a N.E. current for two days, the rate of which along the land was fully $1\frac{1}{2}$ knots. On either side of New Plymouth the coast should be approached with caution, as there are outlying reefs, and jutting ledges extending as I am informed fully two miles to seaward with a heavy surf always rolling in on them.

## Proposed Measures for the Relief of the Mercantile Marine.

"Examples of justice must be made for terror to some; examples of mercy for comfort to others."—Bacon.

*To the Editor of the Nautical Magazine.*

Mr. Editor.—Will you do me the favour to insert in your useful and interesting Journal, the accompanying copy of a letter to Mr. Labouchere, the President of the Board of Trade. The subject is of so much national importance, that I hope it is unnecessary to offer any excuse for trespassing on your indulgence with such a lengthy production.

You are no doubt well aware that Mr. Labouchere intends to bring forward, at the ensuing Session of Parliament, a Government Bill for the purpose of enacting a revised code of Maritime Laws,—which shall amend the discipline and improve the condition of the Mercantile Marine; and that he has called upon all persons, who are able and willing to co-operate with him in that great and important work, to submit their ideas on the subject, and enable him to accomplish the object he has in view.

I have responded to his call, and have to the best of my ability explained the causes and effects of that defective condition of the Mercantile Marine, which has been much and loudly complained of; and I have, in a full and comprehensive manner, detailed all existing abuses, and suggested those remedial measures which I consider essentially necessary to obtain that system of reform which is so emergently required.

I do not presume to imagine that the observations I have made, and the suggestions which I have offered, are in all respects adequate to the purpose of a thorough amendment; they are, however, based on long practical experience, and some knowledge of the conduct and character of the British Seaman.

I have considered it expedient to recommend more stringent and summary modes of punishment as the means of preserving discipline and enforcing obedience; but lest it should be imagined that severity of rule is called for through the misconduct of the whole mass of seamen in the Merchant Service, I would at once disabuse that impression, and declare that I am of opinion the evil disposed, and the incorrigible are, comparatively, but few in number. Were it otherwise, it would be impossible to carry on, with any degree of safety, the navigation and commerce of our country.

The arduous task I have undertaken could not be accomplished, with due attention to its value and importance, without enlarging on several questions which demand a full and impartial consideration; and the arguments which I have adduced in support of the right and authority of inflicting corporal punishment on board merchant ships are especially deserving public notice. I am prepared with well authenticated records to prove that in every case which I have argued and discussed, there are abundant proofs of the absolute necessity of strengthening, and improving the discipline throughout the Merchant Service, which, at the same time, plainly indicate the necessity for the complete revision of Maritime Law.

Under these circumstances, I am desirous to give the utmost publicity to my remarks and suggestions for the purpose of urging and eliciting the opinions of other persons, who, with equal zeal and greater ability, are more

competent than myself to assist in promoting the ends of justice and humanity.

It is very evident that practical knowledge and experience in Naval affairs, can substantially assist in framing an all-sufficient Code of Maritime Law, and as Mr. Labouchere has very judiciously appealed to the public at large for their aid in furtherance of the great national object which he has in contemplation, I hope and trust that many persons will zealously yield to his request, and then our united endeavours would assuredly have a beneficial tendency to promote good order and contentment amongst seamen of every class, and advance the welfare and prosperity of the Mercantile Marine.

I am, &c.,

CHRIS. BIDEN.

*Madras, Nov. 23rd*, 1849.

---

*To the Right Honorable H. Labouchere, President of the Board of Trade.*

SIR.—As a staunch friend to the maritime welfare and prosperity of our common country, I have noticed with much pleasure and satisfaction, that you have pledged yourself to bring before the ensuing session of Parliament, a bill for the purpose of amending the condition of the Mercantile Marine, and I rejoice to find, that you have most liberally called upon the public at large, to co-operate with you in that great national work of reform and amendment, by stating that you hope and expect, that all persons who feel interested in this momentous subject, will examine it in all its details and bearings, and assist you in perfecting it, so that at the beginning of the next session, you may have the advantage of those suggestions, and thus be prepared to do justice to the subject. Under this frank and patriotic declaration which will, I hope and trust, receive a due attention from a number of persons, whose practical experience in commercial and naval affairs enable, and entitle them to aid your zealous endeavours on so very important a subject, and as a member of that community, I have the honor to submit for your consideration, the following remarks and suggestions.

2. Having devoted much time and attention to the state and condition of the Mercantile Marine, I have no hesitation in declaring that it is now so very defective, that unless a complete revision and amendment is speedily determined upon, very serious consequences will ensue. The deplorable condition of the Mercantile Marine is mainly owing to the insufficiency and inadequacy of our Mercantile Code of Law and jurisdiction for all the purposes of its management and control, because with those provisions contained in the Merchant Seamen's "Act 7th and 8th of Victoria," it is utterly impossible to maintain that system of discipline which is essentially necessary for the preservation of good order, and regularity. It is well known that a spirit of insubordination, and disaffection is now so prevalent in the Merchant Service, that many Commanders and Officers are perplexed and involved in difficulties of no ordinary kind and hence arise discontent, and disobedience, imprisonment and desertion: those evils have already proved very detri-

mental to commercial enterprise, because they have led to embarrassment and delay both at sea and in harbour.

3. As a magistrate, I am enabled to state how frequently seamen have refused to do their duty, and how often they have set all authority at defiance, and treated it with contempt; and the records of the Admiralty Courts and Police Offices in like manner, afford such proofs of revolt, and mutinous conduct, of disobedience, and insubordination, as cannot fail to show the absolute necessity of providing an amended system of rule and governance.

4. However, I must say, that in many instances, so determined a spirit of resistance to all lawful authority by seamen themselves, has arisen from the exercise of harsh and oppressive rule, by their Commanders and Officers. It is, therefore, obvious, that, with glaring faults and misconduct on both sides, every effort should be made to guard against such evils by the most effectual means of prevention, and so desirable an end can only be accomplished by a complete revision of Maritime Law, which by the stamp of a legislative enactment, shall clearly and distinctly define the limits of authority on the one hand, and the ties of obedience on the other.

5. Under these circumstances, I fully concur with you that it is of the utmost importance that every enquiry should be made into the character and qualification of Commanders and Officers, because much of the evil, which is loudly and generally complained of, is owing to the incapacity, and incompetency of many persons of that class, who are not duly qualified to discharge those high and responsible duties with which they are entrusted; nor have they that power of discretion and discernment so essentially wanting to preserve a just and equitable system of discipline. There are, I am happy to say, many estimable characters amongst the higher ranks of the maritime profession who have, amidst severe trials of temper and forbearance, kept their ships in good order and their crews under subjection; yet there are, I regret to state, others of a different stamp, and of such diversity of character and conduct, that to assimilate a well digested code of laws for the government and rule of the whole of the Mercantile Marine, is certainly a very perplexing and a most difficult question, and points at once to the expediency of enacting such laws as will contain provisions for all offences opposed to good order, and made suitable to all characters, whereby criminal offenders may be subdued, refractory persons controlled, and tyranny, oppression, and abuses of every kind shall effectually be guarded against, and kept in subjection under the liability of heavy fines, and severe imprisonment. A course of even-handed justice bearing with equal force on the conduct of Officers and Seamen, a system of just and impartial discipline, which shall unite firmness with moderation, will most assuredly ameliorate the condition of the Merchant Service, because it will infuse that spirit of goodwill and contentment, and that mutual confidence which must tend to consolidate the strength and efficiency of the Mercantile Marine.

6. With these preliminary observations, I will now, Sir, point out

the principle defects of the Merchant Seamen's Act, and venture to propose such amendments as will, in my opinion, give power and efficacy to Maritime law.

7. Refusing to do duty, or gross neglect thereof, is the most frequent source of complaint, and has led to great loss and inconvenience to the Merchant Service; therefore, the necessity of enforcing obedience when at sea must be evident to every person, and yet there is no provision in the Merchant Seamen's Act, beyond the mere forfeiture of six days' pay, if a refractory seaman persists in his refusal to obey, or to do his duty beyond twenty-four hours, and seamen are all well acquainted with this portion of Maritime Law. Now, if the bad example of one seaman should influence others, orders may be disobeyed, and duty neglected on very emergent occasions. I am, therefore, of opinion, that the commander of a ship should be empowered to enforce obedience by some summary process.

8. Amongst the routine of duties which seamen are called upon to perform, none is of greater importance than that of keeping a proper, and good look-out at sea. However, it is well known that that emergent duty is not sufficiently attended to in the Mercantile Marine, and that commanders of ships have not the means of enforcing it. I am enabled to cite numerous instances of glaring neglect of this essential duty, and many are on record in the Admiralty Courts, which prove that ships, lives, and property are frequently involved, and have in some instances been sacrificed through this culpable neglect. With such proofs of the disastrous results arising from a bad look-out, or no look-out at all, it is obvious that some decided means should speedily be adopted for effectually guarding against, and preventing the recurrence of such fearful consequences. I would, therefore, recommend that a wilful neglect of the duty of looking-out, either by the absence or negligence of the person stationed for that purpose, or on his being found asleep at his post, should on a conviction before a Magistrate, render him liable to at least two months' imprisonment. The mere entry in the log, and forfeiture of a few days' pay, for disobedience of orders, and neglect of duty at sea, has failed as a means of prevention in so many instances, that either a heavier prospective penalty, or some summary mode of punishment is absolutely necessary.

9. *Theft and Embezzlement.*—The articles of agreement as declared by Schedule A of Act 7 and 8, of Victoria, contain a provision against any embezzlement, or the wilful loss or destruction of a portion of the ship's cargo or stores; but there is no provision in that Act against theft, and as the offence of petty larceny is of frequent occurrence on board ship, I think it very desirable that stealing or purloining any other property, than ships' cargo or stores, should be provided for by a summary mode of jurisdiction. Offenders have frequently escaped with impunity, because commanders of ships have no other means of obtaining redress than by the distant, dilatory, and expensive process of a suit at law.

10. The charge of embezzlement, does not comprise a wilful intention of committing that offence, by breaking into a ship's hold or store-room;

and this is also an offence of common occurrence, and is liable to very serious consequences; because, a ship's hold or store-room may be broken open, or entered during the night, a light may be used, spirits may be broached, and the ship set on fire; therefore, so great an offence should, on conviction before a magistrate, be severely punished by fine or imprisonment.

11. *Swearing, and Blasphemous Language.*—Coarse and abusive language ought not to be tolerated either on the one side, or the other; amongst officers it is exceedingly reprehensible; but when seamen are guilty of so gross a breach of discipline as to use threatening, contemptuous, and abusive language to their superiors, such outrageous conduct should not go unpunished. This is an evil of frequent occurrence, and yet there is no remedy provided for it. Audacious, and sometimes blasphemous language is so common on board some vessels that all order and decency have been set at defiance; several cases have been brought before me, showing that the feelings of our country-women have been assailed, and wantonly shocked by this unmanly outrage. Then assuredly, conduct, so subversive of all discipline and decorum, ought to be prohibited by some certain method of restraint; whereas there is no portion of maritime law, which can be brought to bear upon it. Section 44 of Act 7, and 8, of Victoria, provides for battery and assault, but any misconduct short of the very act of committing an assault, a very aggravated offence which might lead to such a crime, is beyond the jurisdiction or control of a magistrate. It is true that the articles of agreement subscribed to by every officer and seaman, which are part and parcel of maritime law, enjoin obedience and respect, but there is no penalty for an infringement of so ill defined an ordinance.

In well regulated ships, such improper and offensive conduct has, through exemplary influence, been controlled; and it is highly necessary for that well being and comfort which should prevail throughout the Mercantile Marine, that foul and unbecoming language should be checked, coerced, and subdued. I would, therefore, advise, that such gross misconduct should render the offender, on conviction before a magistrate, liable to fine or imprisonment. Under existing laws seamen are well aware how far they may provoke, and set their officers at defiance; but they seldom exceed the bounds by venturing to strike a blow, although they frequently aggravate their superiors to the utmost limits of forbearance. But whilst I would exact a due regard and respect in the conduct and behaviour of seamen towards their superiors, I would, at the same time, provide against swearing, and every expression of abuse and harsh usage by those who are placed in command over them. Abusive epithets engender a spirit of discontent and annoyance in the mind of a seaman; and, whenever he entertains such feelings, he loses all respect for his officers, and a sullen behaviour supplants that proper sense of duty without which a cheerful and prompt obedience cannot be obtained. I would, therefore, in like manner attach a heavy penalty to the offence, when proved against either commanders or officers.

12. *Imprisonment at Sea.*—Empowering commanders to imprison

refractory seamen on board ship at sea for specific offences, as suggested in the bill referred to, will materially strengthen the discipline of the Merchant Service. But it is necessary to bear in mind that every man who may be off duty as a prisoner, would weaken the strength of a crew, and in some measure inflict a punishment on the good, as well as the bad. However, as seamen are strongly impressed with an idea that all other modes of punishment, than the mere forfeiture of a few days' pay, are illegal, every amendment in the Proposed Code of Laws which can prove and explain the legality of an extension of authority, will give force and efficacy to the discipline of a ship's crew; and I venture to say that all persons, acquainted with maritime affairs, are unanimously in favour of such an amended law, that will legally enforce a sound and rigorous system of rule and authority throughout the Mercantile Marine. What they desire, and what is called for, is the means of effectually restraining the exercise of cruelty or oppression on the one side, and the power of well defining the bounden duty of a seaman on the other, and I would offer for the consideration of all other persons, the emergent necessity of an efficient code, by calling their attention to the claims of passengers to that care and protection on board ship, which under existing circumstances they cannot be sure of. And it is not irrelevant to this important subject to bear in mind, that offences which may be considered trivial on shore, cannot be tolerated at sea, whence for a length of time, there can be no escape. Then surely the advocates of amended law, may respectfully submit to the highest authority, the emergent necessity of reform and amendment, by which commanders and officers may have the power to repress all those offences complained of, and preserve that system of order and decorum which will give protection to passengers and all persons entrusted to their care, and thereby preserving harmony and good fellowship throughout.

13. *Enquiry into the Causes of Shipwreck.*—An opinion very generally prevails amongst mercantile men, that shipwreck, and other fatal disasters at sea, should undergo a complete investigation, for which purpose, I would recommend a duly authorised tribunal at each of the principal sea-ports of Great Britain, in the Colonies, and within the territories of the East India Company, where an officer (Lloyd's agent or other person,) may be empowered to convene a committee of competent persons to form a martial court. An enquiry into the conduct of commanders who have the misfortune to lose their ships, would undoubtedly have a good effect, as a favourable result shewing that there was no blame, would prove their competency under trials which call forth the qualification and energy of command; whilst an unfavourable result, which might shew the absence of vigilance and skill, and carry conviction of ignorance and incompetency, would tend to induce a greater care and caution in all the important duties of command; and also ensure a better knowledge of seamanship and navigation. This is a subject of considerable importance, it materially affects the condition and the welfare of the Mercantile Marine, because the certainty of enquiry and publicity, together with a due regard to professional reputation, would promote a

display of greater zeal and vigilance, and thereby afford an additional security to the safety of ships, lives, and property.

14. *The Log-Book.*—If correctly kept and properly attested, is a public record of every occurrence that may transpire throughout the voyage both at sea and in harbour, and as such it is admissible and legal evidence. It therefore, becomes the duty of commanders and officers to devote a strict attention to the entry of every transaction connected with the discipline of the ship, the expenditure of provisions and water, the performance of Divine Service, the register of sickness, and of births, deaths, and burials. A correct system of record and entry would fully and substantially corroborate all the public and private affairs of the ship, and her voyage from one port to another; and as an improvement to the method now in use of keeping a ship's log, I recommend, that every officer who has charge of the watch on deck, from sun-set to sun-rise, should affix his signature opposite the hour when he assumes that charge. This plan would ensure a greater degree of caution on his part, as he may be called upon to explain all the circumstances attending collision, or other remarkable events, which may have occurred whilst he was on watch; and this check on his conduct will induce him to pay proper attention to the important duty of keeping a good look-out. If false entries, or important omissions are detected in the log-book, suitable fines should be levied: indeed, so serious an offence should be visited with fine and imprisonment.

15. *Corporal Punishment for the suppression of extreme insubordination, or open Mutiny.*—On this important question I must say, in the first place, that imprisonment for desertion has not had the desired effect, as it has been found that a number of seamen are callous to such a punishment, and have, in many instances, to my certain knowledge refused to proceed to sea, or rejoin their ships, without offering any reasonable grounds for such conduct. I would, therefore, urge a more severe penalty for desertion than that which is provided for in Act 7 and 8, of Victoria, because it frequently happens that a month's imprisonment, and an idle life for that length of time, is all the punishment endured, as in most of the cases to which I allude the seamen had no wages due; and had generally made away with their clothes before they determined to do no more duty. Therefore, in my opinion, summary chastisement when in harbour, in the presence of the crew of the ship to which the offenders may belong, and given under the orders of the magistrate, before whom they may have been convicted, would have a better and a more exemplary effect.

Those seamen who desert a good ship, and have no fault to find with their commander, well deserve such severity: and, secondly, I am well aware of the difficulties which beset the very serious and important subject of corporal punishment; because it is considered doubtful whether all commanders can safely be entrusted with that authority, which would give them the exercise of so great a power; and there is undoubtedly that variety of character and conduct in the Merchant Service, which plainly shews that many commanders are well qualified to exercise a dis-

cretionary power with sufficient tact and ability, whilst others are deficient in those essential qualifications.

With this admission, allow me to beg your earnest attention to the following facts, which clearly prove that corporal punishment in the Merchant Service, has received the sanction of the highest judicial authority, and as I am very confident, that those proofs will carry conviction where prejudice may have existed, and cast aside all doubtful considerations, I am of opinion that the promulgation of the power with which commanders of merchant ships are invested, would render the most essential service, and tend with great force and efficacy, to uphold and preserve the discipline of the Mercantile Marine; because, I am convinced, that if seamen knew that the laws of their country gave commanders the right and power to inflict corporal punishment, they would not dare to resist it; and I am also persuaded, that the recognition of all lawful modes of punishment, would effectually prevent recourse to other severe and harsh measures, which have frequently taken place on board ships, when desperate efforts to resist authority have been put down, by starting with a rope's end, and main force, and what is not inaptly termed club-law. Evils of this kind have been owing to that undefined rule and authority which leaves seamen in complete ignorance of its extent and validity, and cast loose the unlicensed passion and ungovernable temper, which, mutinous conduct has roused and exasperated on both sides.

With these stubborn facts, and under a firm conviction in my mind, that discipline cannot be maintained, unless it receives additional strength and aid from the highest authority, and bearing in mind that severity at first, is lenity at last, I do most earnestly recommend the necessity of inserting a clause in the New Merchant Seamen's Act, to the effect that, commanders in the Merchant Service, be empowered to coerce and subdue any daring display of insubordination, which may lead to revolt or open mutiny, by the infliction of corporal punishment under certain restrictions and limitations, which I will notice hereafter. Beyond the arguments that I have adduced in favour of such an authentic record of a commander's power and jurisdiction, the publicity is most urgently called for to give that due protection to commanders, in the exercise of their authority, and the discharge of their duty; and to operate as a means of preventing the vexatious, and harassing, and expensive suits of law to which they have frequently been exposed, whereby those trials of great hardship would in most cases be avoided, as the law and the execution of it would be publicly made known and recognized: and at the same time the abuse of that power would always be liable to enquiry, and render every one, who dared to exceed its limits, amenable to the laws of his country. Under these circumstances I feel assured that an unbiassed consideration of the following declarations, from the highest tribunals of justice, and from the most eminent judges who have presided there, will bear me out in the opinion which I entertain on this momentous question.

16. On the 19th of January 1831, at the Court of Exchequer, a motion was made for a new trial in a case which had been decided by a jury

before Mr. Baron Bailey, when the following extracts from what fell from the judges who were present will explain the judgment of the court. Mr. Baron Bailey, having read his report of the trial, Lord Lyndhurst said, "It does not appear to me there is any ground whatever to object to the direction of the learned judge, &c. The captain has authority to order any of the crew who misconduct themselves to be moderately and properly corrected;" and again his Lordship said, "It appears to me that the captain was justified in authorising and directing punishment to be inflicted. There is no question upon this record, and no question can be raised as to the extent of such punishment, under such circumstances: it appears to me that the jury were perfectly right in the verdict they pronounced. The language of the plea is this,—'That the plaintiff behaved in a riotous, and mutinous, and disorderly manner, and then and there refused to obey and permit to be obeyed by the other sailors on board the ship, the lawful and necessary commands of the defendant, and resisted the defendant in the performance of his duty.'—There can be no objection upon that statement upon the record, and if one of the crew dare refuse to obey the lawful commands of the master of a vessel, the master is justified in inflicting such punishment upon him as may be necessary to restrain such conduct."

Mr. Baron Garrow, "I entirely concur in the opinion that has been expressed, and I think the persons most interested in this decision, and in the decision being made promptly without any delay, which might suggest the idea that there was some doubt upon the subject, are, the almost countless number of thousands of men employed as sailors in navigating the commercial vessels of this country; for nothing can be more dreadful than that they should leave this country upon a foreign voyage, under the impression that it is for them, and not for responsible officers, to decide how the discipline of the ship is to be carried on; and where a certain portion have engaged in mutinous conduct that renders it impossible that the duty of the ship can be carried on, that the remainder are to erect themselves in a Court of Appeal, and determine against their officers, who are acting under the highest responsibility. The law is open to the meanest man on board, if the captain, or any one of the officers conducts himself with cruelty, or passion, or intemperance, in administering the discipline of the ship; and the lives of many valuable men would be at stake and sacrificed, if any court or judge could entertain a doubt upon the point stated."

Mr. Baron Vaughan, "I am of the same opinion, the principle is most wide in extent, and it is most important that the public should be in no doubt as to the right of the parties."

Mr. Baron Bailey, expressed his full conviction of the plea and justification, and said, "You may have a mutiny as well in a foreign port, or in a foreign river as at sea, and your ship may be entirely sacrificed, or you may be deprived of the capability of navigating your ship back again, unless you have the means of promptly adopting that course which the law has cautiously put into your power."

17. On another very similar trial at the Admiralty Court, Sir Chris-

topher Robinson declared "that it was his duty here to remark, that a good deal of misrepresentation had gone abroad on this particular subject, and some had doubted the power of commanders of merchant vessels to inflict corporal punishment. The right was, however, recognised both by this court and the courts of Westminster; and if such a power did not exist, it would," his lordship thought, "be utterly impossible that commerce could be carried on; but although this was the case, and that the right of masters to keep their crews in a proper state of discipline was acknowledged as law, still, if a master or commander of a ship, should inflict, or cause to be inflicted, unnecessary, or more than ordinary punishment on any of the persons under his control, he would be amenable for his conduct to the criminal laws of the country."

Mr. Justice Bosanquet said, "Punishment ought only to be inflicted in extreme cases, and that the master of the vessel should act under the advice of the officers immediately under him in command; in the first place, to prevent the operation of any vindictive or improper feeling that by possibility might exist in his own breast, and in the next, in order that he might have witnesses to speak to the propriety of his conduct." And on the 23rd of February, 1837, another important trial took place before Lord Denman, when his lordship and the jury decided that, the commander of a merchant ship is justified in restraining mutinous conduct by resorting to corporal chastisement. Moreover, flogging is held legal by the decision of the late Lords Tenterden and Stowell, who have minutely explained the right and authority of inflicting such punishment on board merchant ships, and they have especially urged the propriety of holding courts of enquiry, and acting on such occasions with every caution and deliberation.

18. But whilst I venture to advocate the expediency of vesting so much power in the hands of a commander, I would guard against its abuse and severity by the most zealous and vigilant care and control. I am of opinion that corporal punishment should never be sanctioned or permitted except in very extreme cases, and to a limited extent, and even then no commander should resort to so severe and painful an alternative, unless every other effort has failed to subdue mutinous conduct, and to coerce obedience, nor until the offender's behaviour has been most carefully, impartially, and deliberately inquired into, and in the event of conviction of a very serious offence, and the absolute necessity of corporal punishment, all the circumstances of the case should be well and truly recorded in the ship's log. Whilst on this subject, I am sorry to say, that there are such unruly and turbulent characters on board ship, who treat all authority with so much contempt, that unless commanders are armed with some strong and summary means of coercion, the bad example of mutinous and disaffected men would lead others astray, until the discipline and the management of a ship became so seriously involved, as to place her safety and the lives of all on board in imminent peril.

19. *Water and Provisions.*—A fixed scale of dietary for the daily use of seamen throughout the Mercantile Marine, as suggested in the Bill under consideration, will greatly improve their condition, because there

is no certain or compulsory plan for the supply of water and provisions throughout the Merchant Service. The daily issue, and the quantity provided for a voyage, and the quality thereof, are in a great measure dependent on the will and caprice of parties concerned. I have drawn out a scale as exhibited in schedule A, which gives an ample allowance, and is suitably adapted for a long voyage. Those ships, which have been victualled according to the scale recommended by the committee of the General Ship-owners' Society, have seldom been provided with any stock of vegetables. I would, therefore, urge the necessity of compelling ship-owners, to provide every ship bound on a voyage, which may exceed two months from port to port, with at least one month's consumption of potatoes or yams.

This safeguard against the ravages of scurvy, is I think indispensible, and although every friend to the health and comfort of seamen must rejoice that that once fatal disease has lost much of its virulent effects at sea, and is seldom known on board well regulated ships, where a due attention is paid to ventilation, cleanliness, and the supply of good and wholesome provisions, yet, when we do know that several lamentable cases of scurvy have recently occurred on board ship, it becomes our duty to guard in every possible manner against so serious an evil, by the superintending care of a vigilant inspection and control. I would therefore maintain the law as at present established, which authorizes the survey of provisions, and at the same time amend that law by a careful supervision of the quantity and quality of a sufficient supply of water, biscuit, flour, &c., for a given passage from one port to another, and of salt provisions for the whole voyage, and enforce the rigid performance of the ordinance by suitable fines. In the event of a ship falling short of either water or provisions, and seamen being reduced in their daily allowance in consequence of such deficiency, I would hold the owner liable to award a remuneration to each seaman of double the estimated value of the quantity he has been deprived of. And here I beg to observe, that notwithstanding all that has been urged and said about temperance ships, I am still inclined to the expediency of serving out a very moderate quantity of spirits, because when a substitute for spirits is most needed, it may be impossible to give it, viz. in very severe weather. Moreover, my experience as an officer and commander, affords a full conviction to my mind, that a moderate issue of spirits will do more good than harm; and whilst commanders and officers can indulge in wine and beer, I see no necessity for withholding something more exhilarating to the seamen than tea or coffee, or a water beverage. The abuse, but not the use of spirits should be the criterion, and drunkenness cannot be too severely reprobated! Therefore, one dram of spirits per day to each seaman cannot, in my opinion be objectionable.

Beyond the prescribed store of medicines for a voyage I would recommend a supply of medical comforts; the articles which I think necessary and conducive to health, are noted in the scale of provisions: they are not expensive, and ought not to be denied.

20. *Medical Aid.*—In Act 7 and 8, of Victoria, cap. 112, it is or-

dained " that every ship, the voyage of which shall exceed twelve weeks, and having on board fifty persons, shall have as one of her complement a physician, surgeon, or apothecary." Now, as there are many large vessels which frequently carry from thirty to fifty persons as the complement of their crew, and are engaged on a voyage which may extend to one or even two years, it seems highly expedient to provide such vessels with some better Medical Aid than can be dispensed by the commander. I would, therefore, recommend that if it be considered too expensive for ships of a smaller class, than those referred to in that act, to carry a surgeon, that they should be bound to carry an officer of an inferior, and less expensive description, such as an apothecary; but if that cannot be conceded, it would seem requisite that seamen should have some guarantee that in the event of accident or disease, there is an efficient means of help and medical assistance at hand. Under these circumstances, it may be requisite to enquire whether commanders have some slight knowledge of surgical and medical treatment, or are provided with such instructions as will enable them to act on emergent occasions, which may involve the necessity of a surgical operation.

21. *The Preservation of Health.*—As ventilation and cleanliness are not only conducive to health, but tend so materially towards the comfort of every person on board ship, there can be no doubt that some standard rules should be established to ensure a due attention to those essential remedies against sickness and disease. I am, therefore, thankful that the sanitary condition of merchant ships is noticed in the Government Bill; but as the only observation made therein relates to an increased space for the accommodation of seamen, which is very much wanted, and will undoubtedly be a great means of affording additional comfort and advantage to a ship's crew, yet it seems to me that, in other respects the health and comfort of seamen is not sufficiently attended to in the Merchant Service, and has, in many instances, been very much neglected. I would, therefore, suggest that some stringent measures be enforced for the purpose of ensuring a due regard to cleanliness and ventilation, not only in that part which is allotted to the seamen themselves; but, throughout the ship: I would also advise a clause in the ship's articles, to the effect that one day in the week shall be appointed as a washing-day, when seamen can both wash and mend their clothes; and, I am decidedly of opinion that the good old custom of the hammock system is far preferable to any fixed berths, because a seaman's hammock and bedding can be removed, and aired whenever necessary; whereas a fixed berth is too often neglected, and becomes a nuisance. The regulations for internal order and cleanliness cannot be properly defined in a code of law; but if all merchant ships were compelled to provide their crews with hammocks, and give every seaman a sufficient space to swing his hammock, I am very certain that such a renovated system of berthing a crew would have a beneficial effect, and at once give full scope to the means of preserving health and cleanliness throughout the Mercantile Marine. But owing to that ill-defined method which is now in operation, a confined, and an unwholesome berth, which is not properly ventilated,—a wet deck, damp

bedding and clothes, and a scanty supply thereof, together with inattention to general and personal cleanliness, are the main causes of fever, dysentary, rheumatic disease, and scurvy; and I verily believe that the absence of salutary precautions, so feasible at all times, and inexcusable when omitted or neglected, has led to that lamentable disease termed the Ship Fever, which has within the last five years, raged with such a fearful and calamitous result on board several ships.

22. It is well known that many seamen, when left to themselves, are careless and indifferent to habits of cleanliness and good order. It is, therefore, necessary that they should be well trained, well attended to, and carefully looked after in all those matters which tend to the preservation of health; and I have no doubt that the practical exercise of cleanly habits would soon induce a willing, and a cheerful compliance therewith.

23. The health of British seamen is a subject of such vital importance in a national point of view, that it well deserves the utmost care and consideration; and I am convinced that a proper method of internal management on board every merchant ship would have a direct and beneficial tendency towards the preservation of health. I am further of opinion that if certain rules to be noticed hereafter, are practically and judiciously carried into operation, so great and desirable an object will with the all-protecting aid of Divine Providence, be effectually accomplished.

24. The co-operation of the Royal Navy with the Mercantile Marine to which you have alluded, induces me to state, that it is well known, an impediment, or an objection exists in the navy to interfere with the discipline of a merchant ship, either at sea or in harbour. When in harbour officers in Her Majesty's Service do not like to come in contact with the Civil authorities, but I think it would be very conducive to good order in the Merchant Service, if captains and officers of the navy were empowered and directed to afford assistance to the Mercantile Marine, and yield compliance with the requisition of commanders of merchant ships on any emergent occasion when insubordination or disaffection might require their powerful intervention. A well timed visit of inspection, and a Court of Enquiry held by Naval Officers, would soon bring matters to an issue; whilst the liability of such a visitation, either at sea or in harbour, would operate with a beneficial effect on the control and discipline of the Mercantile Marine.

25. *Crimps.*—As a strenuous advocate for amending and improving the condition of the Mercantile Marine, I am glad to find that you are determined to adopt other stringent measures than those provided for in the Bill, to which you advert, which is intended to place certain restrictions upon the Crimping system. The power and influence which crimps continue to exercise over the habits and conduct of British seamen, should be rooted out by every means that past experience can devise. Seamen are robbed by crimps of their hard-earned wages; their short abode in their native country is spent amidst the most revolting scenes of drunkenness and vice, and evil contamination; at once debasing and demoralising,

and very injurious to their health and constitution; and after a brief career of folly and dissipation they are forced in debt, and have no other escape or alternative than the renewal of their services at sea, whence they are sent at the will and caprice of a merciless horde of crimps. This disgraceful practice has a fatal tendency to undermine the wonted character of a seamen, it sours his temper, it inclines him to disaffection, and is a latent cause of that laxity of discipline which is so much complained of. But there are many good seamen who have manfully resisted all the luring designs of crimps; and the conduct of that class exhibits a grateful contrast to the other, by their exemplary and orderly behaviour on board ship.

26. *Registration of Seamen.*—I have not had sufficient experience on this subject to warrant a decided opinion as to the merits or demerits, of the issue of Registry Tickets; but, I think it advisable that they should be so stamped, that it would almost be impossible to forge or imitate them. I would also advise the tickets to be enlarged for the purpose of recording the last ship the bearer or owner of a ticket served on board; and also for the insertion of a brief certificate as to his conduct and character. A plan of this kind would tend to stimulate the good, and deter the bad; but, in the exercise of this authority or privilege, it is relied upon and expected that no commander can, or will, be led away by passion or prejudice.

27. *Divine Service.*—That the Sabbath-day should be kept holy, and that Divine Service should be well and duly performed is so important, and so sacred a duty, that it would seem unnecessary to call attention to that impressive subject: yet, I am sorry to say the observance of the Sabbath is by no means in general practice throughout the Mercantile Marine.

I have, for many years, entertained a desire that this duty should be compulsory; and that a certain fine should be levied on all commanders who fail in giving satisfactory reasons in their log-book for such culpable omission and neglect. The performance of Divine Worship is one of the best and surest means of upholding the discipline of a ship; because by precept and example, as set forth in Holy Writ, every officer and every man, who pays the least attention to his religious duties, cannot fail to have a conscientous regard for, and a due sense of that justice and humanity, which should always incline him to mercy and forgiveness. I would therefore make the performance of Divine Service compulsory both at sea and in harbour.

28. *Rules and Regulations.*—To pursue a system of efficient discipline, and provide for the preservation of comfort and decorum, I would recommend appending to the act in contemplation, certain subsidiary rules and regulations, such as will enjoin a system of salutary order and restraint; and afford commanders, officers, and seamen, and all other persons on board ship, the means of reflecting, judging, and duly considering all that devolves upon them in their respective line of office and duty. This method of devising the routine of duties which comprise all that can regulate the internal management and control on board ship, and which

cannot well become the subject of a legislative enactment, would proclaim a general code of rule and governance for the Mercantile Marine. On the one hand, it would restrain authority within the limits of a just, humane and equitable sway; and on the other, it would forcibly indicate a system of such order and regularity as would promote a cheerful obedience; and ensure that comfort and happiness which, in every well regulated ship, ought to be the grand object of attainment, where unanimity should prevail, and where every officer, and every man is expected to do his duty with good will, alacrity, and zeal.

Under this impression, I beg leave to submit for your consideration the following Code, which in my opinion embraces all material points of discipline and good order; but it is undoubtedly open to both amendment and improvement. The utility and the advantage of such a method of guidance is so obvious that I cannot imagine it will be objected to; and should it be considered impracticable to append the Code to the Merchant Seaman's Act, I would recommend the promulgation thereof, under the sanction and authority of the Ship-owners' Society, which would at once command that due attention and ready compliance that so important a subject demands.

I. Commanders and officers of ships would do well to bear in mind how much the cheerfulness and happiness of their subordinate shipmates, may depend on the care and humane consideration which, without trouble and inconvenience, can so easily be extended and bestowed. Amongst those grateful offices of humanity, I would earnestly advise a due attention to the sick, and that kind and considerate care would never fail to produce a good effect; because a manly and generous line of conduct will frequently subdue the refractory, and in general it will command both respect and obedience.

II. Cheerfulness and contentment should be encouraged by every possible means, and all attempts to harass and annoy a ship's crew by uncalled for, and meddling interference with their amusements and recreation, should be carefully avoided, except when necessity demands it.

III. Commanders and officers should duly reflect on the diversity of character and temper they have to govern, and whilst they exact a due performance of every duty, they should guard against a too rigid notice of trifling omissions; vexatious and frivolous complaints tend to much annoyance and discontent.

IV. Divine Service will be performed on the Sabbath-Day, and whether this sacred duty takes place on the quarter-deck, or in the the cabin, it must be attended with the utmost respect; therefore, the ship's company will always, on that solemn occasion, appear in clean clothes.

V. Every cause of complaint, must be quietly and respectfully made known to the commander on the quarter-deck, or reported to him through the chief officer, or the officer of the watch. Drunkenness and riotous behaviour will not be tolerated, and offences of such a nature will be duly noticed in the log-book.

VI. Swearing, and abusive and blasphemous language is disgraceful; this evil practice is strictly prohibited, and as a serious offence, it will, on conviction, be noted in the ship's log.

VII. No officer is permitted to strike, or beat, or ill use any man or boy; but in the event of any breach of discipline being committed, by any subordinate person, he is quietly to make known the same to his commander.

VIII. The punishment by starting or beating with a rope's end, or gasket, or a stick, is illegal, and is strictly prohibited.

IX. Cleanliness is so conducive to health and comfort, that every seamen is expected to be careful and attentive in this respect, both in his person and his clothing: seamen are cautioned against turning in with damp or wet clothes on.

X. One day in the week will be appointed for washing and mending clothes, and the crew are not to be disturbed from this indulgence for any other purpose than the trimming of sails, or such other duty as may be necessary.

XI. The ship's company are not to be exposed to the sun or rain, when such exposure can be well avoided, and every facility is to be given them, with lines, &c., to dry their clothes.

XII. Every possible attention is to be given to the cleanliness of the decks above and below.

XIII. The space allotted for the berthing of the ship's company must be well ventilated, and is to be kept dry and clean at all times; it should be fumigated, occasionally; and care must be token after wet weather, to have the people's clothes well dried, and their bedding aired: hammocks are to be kept clean and well attended to, in their berthing below, and stowage on deck.

XIV. The helmsmen are to take the helm in clean clothes.

XV. The ship's company are to take their meals at the time appointed, which is to be preserved as punctually as possible; change of wind or weather can alone interfere with this regulation; and the usual time for breakfast, dinner, and tea, as appointed by the commander, will always be allowed.

XVI. Going overboard, at sea, or in harbour, will be considered as a breach of discipline, and noticed accordingly.

XVII. The magazine and spirit-room are never to be opened without the commander's permission; and spirits are never to be broached below, but the cask which may be in use must be hoisted upon deck.

XVIII. No lights are to be used in the hold, fires are to be put out at 6 P.M., and the use of lights everywhere is to be carefully attended to.

During the night, the officer on watch is to be vigilant in the performance of his duty, and he must implicitly obey his commander's orders. As a good look out is of the utmost importance, he must repeatedly hail the man stationed for that purpose, and go forward himself and ascertain beyond all doubt that he is looking out; and in the event of sudden and immediate danger by fire, or collision, or the discovery

of rocks, shoals, or icebergs, he is desired to act and decide at the moment to the best of his judgment for the avoidance of danger, and the safety of the ship; and then he must arouse his commander in such a manner as can admit of no mistake in the critical point of his bounden duty. He is also desired to make known to his commander any change of wind or weather, and when it is necessary to attend to soundings, he must strictly obey the orders he has received, and be sure that true and correct soundings are obtained, and to make his report accordingly; the discovery of lights, land, or a strange sail, or the occurrence of any other remarkable event, must also be made known to his commander.

XX. To guard against the fearful danger of collision during the night, every ship shall be provided with a good lantern kept well trimmed and always ready for immediate use; and during thick or dark weather in the open sea, a good light must be carried at the bowsprit end throughout the night. Where it is absolutely necessary that a light should be invariably carried in channels or narrow seas, ships navigating those seas where fogs are prevalent ought to be provided with fog signals, and have a great gun ready to be fired at a moment's notice.

XXI. All offences, and every breach of discipline, which may render the offender liable to a penalty, or the infliction of punishment, together with every remarkable occurrence throughout the voyage, must be correctly recorded in the ship's log-book. Commanders of ships are hereby warned of the necessity of a strict attention to the daily entry of every transaction in the log-book, for which they are always held responsible. A neglect of this duty would preclude the adjustment of forfeitures for certain alleged offences, and would also defeat the ends of justice when affairs of some consequence called for enquiry. But in the event of false entries and omissions of any importance being detected in a ship's log-book, fine, imprisonment, and disqualification should be the result of so serious a dereliction of duty.

XXII. A due regard to the foregoing rules and regulations, will preserve that system of discipline so essentially necessary for the safety, comfort, and welfare of every one; and as prompt and implicit obedience is the spirit of discipline, that standard principle should never be neglected.

XXIX. Reverting to the projected measures as set forth in the Government Bill, I cannot refrain from offering a few remarks on the plan you have suggested for rewarding meritorious officers in the Mercantile Service, which is I think very desirable. I would even recommend bestowing on the Merchant Service, partially, according to the classification of ships, or generally, a plain and simple uniform dress, which should not in any respect imitate the uniform of the Royal Navy; but I am afraid any distinction in the way of authority, on the definition of individual power in the exercise of a commander's jurisdiction on board ships of one class, and withholding that power from commanders' of another class, would fail in improving the discipline of

the Mercantile Marine, because the strengthening of discipline is not so much wanted in the higher class of ships and commanders, as it is in the lower class. Commanders of experience and sound judgment to whom you allude, seldom fail by their exemplary influence, to preserve good order; but other commanders, who are deficient in those essential qualities, do really require the aid of a well defined system of discipline. I am therefore of opinion, that is is highly expedient to govern the Merchant Service under one and the same law, and those commanders, who may venture to deviate from the principles of that law, must abide the consequences. The conduct of an able and a judicious commander in the management of his ship will bring its own reward, and entitle him to any mark of favour; whilst that commander who is found incapable to command both officers and seamen, should be held amenable for every violation of the trust committed to his charge.

XXX. Upon this occasion I beg to call your attention to the accompanying copy of a petition from the Merchants, Ship-owners, and Master Mariners, and others, within the Port of Bombay, which will convince you that the defective state of discipline throughout the Merchant Service is of long standing. I had the honor of suggesting the expediency of holding the meeting, at which the resolutions therein conveyed were voted on the 24th of February, 1838; and I had also the honor of presenting the original petitions to Lord Minto, then first Lord of the Admiralty, and to the late Sir J. R. Carnac, who was at that time a member of the House of Commons.

XXXI. I have thus explained the defective state and condition of the Mercantile Marine, and suggested the means by which I am of opinion that great and invaluable branch of our national strength and prosperity may be reclaimed, and in conclusion, I will briefly recapitulate the principal subjects which require especial notice. The grand desideratum is the legal sanction of a constituted authority on board Merchant Ships, which shall have the right and power to subdue offences of that magnitude, that would otherwise subvert all discipline, and endanger the safety of the ship. The great source of evil that is so generally complained of, arises in the first place from insubordination and a refusal to do duty; then follows another, contempt for all authority, when a strenuous effort to regain the command has, upon some occasions, led to violent measures and loss of confidence on both sides; whilst in many instances the ship's company have so far got the upper hand, that they have done as much, or as little, work as they pleased. I am, therefore, convinced that a positive refusal to do duty should be corrected at the onset, or on the first display of such conduct by summary chastisement. A severe example of this kind at the commencement of a voyage would prevent the recurrence of one of the most frequent and serious offences committed on board a Merchant Ship, viz: striking work, and the contemptuous refusal of a seaman to do his duty. Insolence, and the use of threatening language, is another serious offence, and a provision should be made to bring such conduct under subjection, and in the

event of an actual assault by a seaman on his commander, or on a superior officer, the commander should be justified in the assertion of his authority by the infliction of corporal punishment.

Plunder and theft should also be provided for by an exemplary punishment.

With respect to minor offences, some may be kept under subjection by due admonition; but if that fails, then the forfeiture of a certain amount of pay, or a temporary confinement on board ship, should be the alternative.

XXXII. An efficient system of discipline does not imply an undue system of severity, and the necessity of it is so obvious, that seamen themselves soon become reconciled to order and regularity; and most undoubtedly, they enjoy more real comfort, and are much more contented and happy in a well disciplined ship, than they ever are, or can be, in a disorderly ship.

XXXIII. There are two classes of seamen, the good, and the bad; but I am proud to say, that I verily believe there is a vast majority of the first class, who have been well trained amidst all the vicissitudes of their arduous profession, and are well inclined and resolved at all times to uphold the sterling character and reputation of British Seamen. Such men have no cause to apprehend any ill effects from the revision of the law under which they may be called upon to serve, and would themselves vote in favor of that discipline which will protect the good, and coerce the bad.

"Examples of justice must be made for terror to some; examples of mercy for comfort to others."

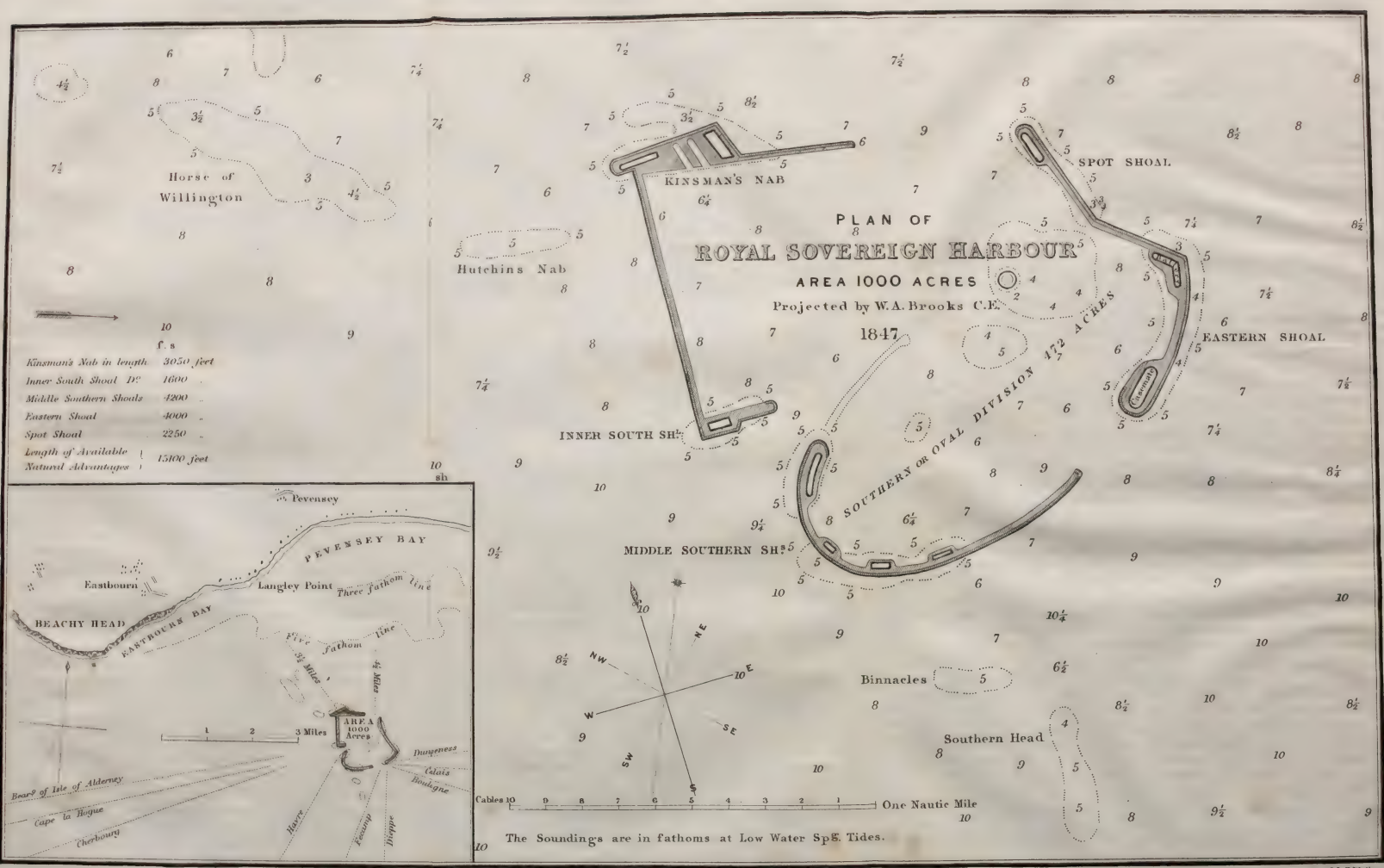
XXXIV. Under all these circumstances, I do most sincerely hope and trust, that your strenuous endeavours to promote the welfare and prosperity of the Merchant Service, will be crowned with complete success, and bring into operation such an amended Code of Maritime Law, as will give stability and security to the Mercantile Marine; and then, with every confidence in so great a national work of amendment and reform, both officers and seamen will unite with a hearty spirit of goodwill to cherish that love of country, and regard for their own profession, as will manifest to the world at large the manly bearing of British Seamen; and shew that when they are ably governed, well protected, and thoroughfy disciplined, they can, and will do their duty, with a loyal and zealous devotion to their sovereign, and their country, and with good faith towards their employers.

I am, &c.,

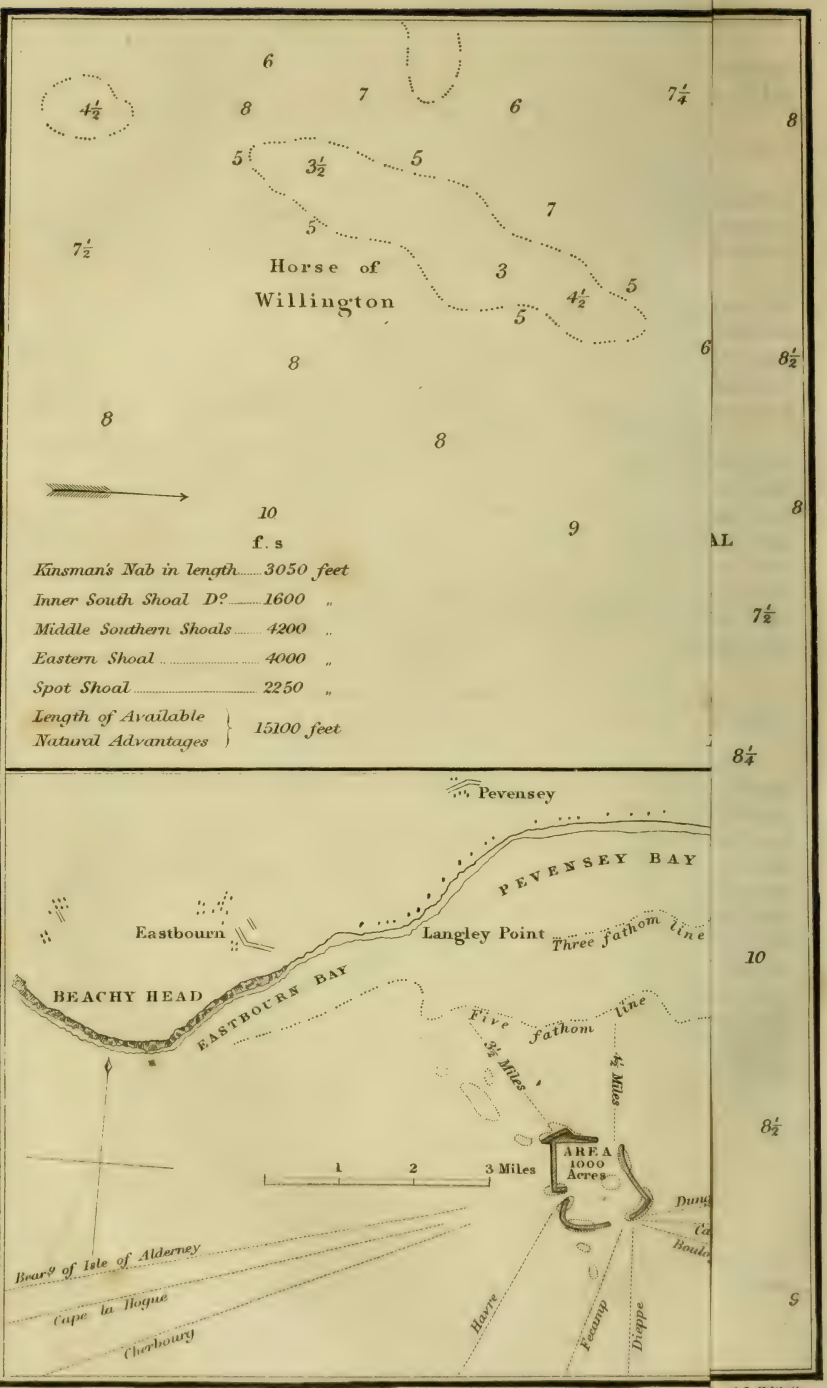
CHRISTOPHER BIDEN,

*A Commander in the late Maritime Service of the Hon. East India Company, and Master-Attendant at Madras.*

*Madras, Nov. 9th*, 1849.




Engraved by J. & C. Walker.


6
7
6
7¼
8
4½
8
5
3½
5
7
5
7½
Horse of
Willington
3
4½
5
5
6
8½
8
8
8
10
f. s
9
AL
8
7½
8¼
Kinsman's Nab in length 3050 feet
Inner South Shoal Dº 1600 „
Middle Southern Shoals 4200 „
Eastern Shoal 4000 „
Spot Shoal 2250 „
Length of Available Natural Advantages 15100 feet
Pevensey
PEVENSEY BAY
Eastbourn
Langley Point
Three fathom line
10
BEACHY HEAD
EASTBOURN BAY
Five fathom line
3½ Miles
4 Miles
8½
AREA
1000
Acres
1 2 3 Miles
Dung
Ca
Boule
Bear.g of Isle of Alderney
Cape la Hogue
Cherbourg
Havre
Fecamp
Dieppe
9

by J. & C. Walker.

## Schedule A.

Scale of provisions for daily use throughout the Mercantile Marine for each man for seven days.

| Days of the week. | Spirits.* | Bread. | Beef. | Pork. | Pease. | Rice, | Flour. | Raisins. | Suet. | Cocoa when tea is not served out | Tea. | Sugar. | Potatoes or yams when flour is not served out. | Water without the tropics. | Water within the tropics. | Lime Juice. | Vinegar. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | drm | lb | lb | lb | pt | lb | lb | lb | lb | oz. | oz | oz | lb. | pts | pts | oz | |
| Sunday..... | 1 | 1 | 1½ | ... | ... | ... | | | | 1 | ¼ | 1½ | 1 | 6 | 7 | ½ | |
| Monday..... | 1 | 1 | ... | 1½ | ½ | | | | | ... | ¼ | 1½ | ... | 6 | 7 | ½ | |
| Tuesday..... | 1 | 1 | 1½ | ... | ... | | | | | ... | ¼ | 1½ | ... | 6 | 7 | ½ | |
| Wednesday. | 1 | 1 | ... | 1½ | ½ | | | | | ... | ¼ | 1½ | ... | 6 | 7 | ½ | |
| Thursday... | 1 | 1 | 1½ | ... | ... | | | | | ... | ¼ | 1½ | ... | 6 | 7 | ½ | |
| Friday..... | 1 | 1 | ... | 1½ | ½ | | | | | ... | ¼ | 1½ | ... | 6 | 7 | ½ | |
| Saturday.... | 1 | 1 | 1½ | ... | ... | | | | | ... | ¼ | 1½ | ... | 6 | 7 | ½ | |
| | | | | | | One pound per week. | | Once a week. | Once a week. | | | | | | | | ½ pt. pr. wk. to each man. |

Medical comforts for a voyage extending to twelve calender months, and in a proportionate quantity if the voyage should be of a longer or a shorter duration, for every ten men.

| | | | |
|---|---|---|---|
| Oatmeal | 25lbs. | Port Wine | 18qts. |
| Scotch or Pearl Barley | 25 " | Soap | 25lbs. |
| Sago | 25 " | Soup & Bouilli (preserved) | 100 " |

N.B.—Soup and Bouilli may be served out in lieu of salt meat.

* Eight drams equal to one pint.

Raisins and suet, on one day in the week, would be a great indulgence; but not an expensive one.

When fresh meat is served out, the daily allowance should be 1½lb. per man, with ½lb. of potatoes or yams, and ¼lb. of green vegetables; but if vegetables cannot be procured, then there should be a daily allowance of 2lbs. of fresh meat.

Seamen may receive any suitable compensation in lieu of spirits.

---

## Design for a Harbour, or Naval Station, *having an area of One Thousand Acres, with from* 6 *to* 8 *fathoms in depth at low water of Spring Tides, in the immediate vicinity of Langley Point, east of Beachey Head.*

The locality of the proposed Harbour has hitherto been only known as presenting a group of dangerous shoals, which it was urged before the Commissioners upon the subject of Refuge Harbours, would make it inexpedient to construct a Naval Station on the east side of Beachey Head, by reason of these shoals lying in the way of the direct approach from the eastward.

It is with these very shoals, known by the names of "Kinsman's Nab," "Inner South Shoal," "Middle South Shoal," "East Shoal," and "Spot Shoal," that have on them at low water a depth of only from 3 to 5 fathoms, with deep water, or from 6 to 9 fathoms within and without them, which by availing myself of the natural advantages of their shoalness, that I am enabled to form my plan, as one which, while it will save an expenditure of two millions sterling, will also ensure the possession of a *permanent deep-water harbour*, in which the largest fleets may safely ride at their own moorings, and which may be approached or left with confidence in the darkest nights, and most tempestuous weather.

By a permanent deep-water harbour, I mean that in *this* plan, there is not that dread of a large structure being eventually found to be the means of arresting and accumulating the shingle, which travels along the south-eastern coast, on which subject I may add hereafter a few observations.

The shoals referred to above, surround "The Royal Sovereign Shoal," a small patch having on it 10 feet 6 inches at low water, on which I propose to construct a redoubt, commanding the entrances to the proposed harbour, as well as to build on it an inner or high lighthouse, which with the addition of low lights at the entrances, will serve to lead ships in.

One important feature in my plan is, that before its completion, or in fact before one-fourth of the cost for the whole harbour shall have been completed, it will be found that the execution of a portion of the works, will have produced a useful rendezvous for steam-frigates if required to protect the channel. Thus the formation of the breakwater, delineated on the inner and middle south shoals, and the short gap between them will shut out all seas from N.N.E., round to the westward as far as S.S.E., or between twenty points of the compass, from which shelter is most required in this channel; but should the wind fly round to any point between S.S.E. and E., a breakwater constructed on the Four Fathom Shoal, called the East Shoal, will give ample security to steam-frigates, or any other ships well found in moorings. The remaining six points are sufficiently sheltered by the land.

I have preferred a harbour of very large area, as I am aware of the necessity which exists of two features being comprehended in a plan for a first rate Naval Station, and Harbour of Refuge, viz.: ample space to allow a separation, or separate localities for Queen's ships, and merchant vessels to moor in, and also sufficient space for a line-of-battle-ship to get under command of sail before running out.

Should, however, these objects be obtained without carrying out my plan to its full extent, which would entail an expenditure of four millions, I am prepared to show that the execution of the southern or oval division will not cost more than $2\frac{1}{2}$ millions of money, (or about the estimate of expenditure recommended for a Naval Station at Dover,) and that same will give an area of 472 acres of harbour space, having an average depth of 7 fathoms at low water (the Four Fathoms ground in the im-

mediate vicinity of the Royal Sovereign shoal not being included in the above calculation of 472 acres, or that of 1,000 acres previously mentioned,) whereas the same amount of money, viz. 2½ millions will only give a sheltered area of 330 acres, to the Three Fathom Edge at Dover; or less than 300 acres having 5 fathoms at low water.

To form a ready conception of the cost of the harbour now proposed by me abreast of Langley Point, East of Beachey Head, I have made corresponding calculations of the cost of forming the breakwater at Seaford, and the work at Dover, as per plans appended to the report of the Harbour of Refuge Commissioners, the sectional areas in equal depths being supposed alike, with the exception of that portion of the breakwater in my plan on Kinsman's Nab, which from being only exposed to a sea range of from four to six miles, I have assumed as necessary to have merely that sectional area which 3,504 square feet of material will give, in a depth of 4 fathoms at low-water; and 6,320 square feet of stone will make if deposited where the depth is 7 fathoms at low water.

The breakwater is proposed at Seaford to be 6,000 feet in length, and made in 7 fathoms at low water of spring tides, each running foot containing a sectional area of 12,153 feet, or allowing one-fourth for voids, containing 9,115 square feet of stone, the same will require about 54,690,000 cubic feet of stone, which at the estimate of the Refuge Harbour Commissioners, of £1,250,000 for that Naval Station, will be about 5½*d.* for every cube foot of material used.

The breakwater at Seaford, if constructed, would only give a sheltered area of about 120 acres having 5 fathoms at low water, and, although the breakwater is well planned for the locality, yet there is only a depth of 3 fathoms at two cables' length from it, or to leeward of that end of it, or outlet which ships must clear when the wind is from the westward, or any where from that direction which produces the greatest surf upon the shore.

Comparing the cost of the scheme proposed by me with that of a harbour at Seaford, with which it directly competes, I find that the southern or oval division before referred to, as having an area of 472 acres, will require 100,833,200 cubic feet of stone, which, at 6*d.* per cubic foot, will amount to £2,520,830; so that, for double the outlay, my plan will give four times the extent of deep water refuge, (with the advantage of security from an accumulation of shingle), while at the same time the harbour can be entered or left with perfect safety from whatever quarter the gale may blow. The larger harbour, or of 1,000 acres in area will require, for the formation of its breakwater, or piers 157,324,620 cubic feet of stone, which, at 6*d.* per cubic foot will amount to £3,933,115, or, in round numbers, to four millions.

Applying the same calculation to the piers or breakwaters proposed to be constructed at Dover, according to the plan which accompanies the Report of the Refuge Harbour Commissioners, I find that "the 300 acres" having not less than 5 fathoms, or 520 acres to low water mark will require 85,837,480 cubic feet of stone, which, at 7*d.* per cubic foot,

will give the £2,500,000, forming the amount of the estimate of the Honorable Commissioners for Refuge Harbours.

To simplify the comparison, I have supposed that rubble, or sloping breakwaters are to be used in each, though, for some parts of my own plan, I consider that nearly vertical walls will be preferable.

Comparing the proposed Royal Sovereign Harbour, with that intended at Dover, I find that the same outlay of $2\frac{1}{2}$ millions will give 472 acres of deep water at the former place, and 300 acres at the latter, while an additional outlay of $1\frac{1}{2}$ millions will complete the larger harbour designed by me East of Beachey Head of 1,000 acres, or give more than three-times the space.

As the material for the formation of the breakwater will have to be obtained from the westward, the addition of one penny per foot for the extra freight to Dover will probably be thought not enough.

I have entered rather fully into the comparison between the cost of works having natural advantages towards their construction, and those without them.

That an apprehension has generally existed as to the shoaling up, by the deposit of shingle, which would result from the construction of piers connected with any portion of the shore of the south-eastern coast (or wherever there is a travelling shingle beach) is but too evident, and hence the adoption of the system of isolated works or breakwaters, such as that proposed off the Seaford shore. This is only putting off the evil day (*but paying dearly for it*) for most assuredly the ultimate result must be the stoppage of the shingle, which now travels along the coast, impelled by the surf of the prevailing on shore gales, until, having shoaled up the space between the breakwater and the shore, the shingle will again resume its onward easterly course, which it will do along the outer face of the costly breakwater, or new shore formed for it to travel along. The next step towards destruction will be the accumulation of shingle at the eastern end of the breakwater, which will soon be connected with the main land by a shingle beach.

These observations will apply to any harbour situated on a coast subject to a travelling shingle beach, and to suppose that the shingle travels only between low and high water mark, is at once to conclude that the ruin of such a harbour will be the more rapid.

We know that the shingle travels from the impulse of the surf or waves, and therefore to place a long line of breakwater so as to overlap the shore, or shelter it from the surf is clearly the most efficient *modus operandi* to accumulate shingle under its lee, such a breakwater being in fact a perfect shingle trap in such a situation.

Even in the example of the plan of the Royal Sovereign Harbour, I doubt whether it would be prudent to construct any additional breakwater or works upon the rocky ground, the Horse of Willington, because of the tendency of such a construction to arrest the progress of the shingle in its eastward course.

Along the whole of the south-eastern coast though great are the irregularities of its contour, the same inconvenience from travelling

shingle is experienced and the shingle end is only found near Sandown Castle, where the Goodwin Sands overlapping the shore, check the progress of the shingle, by the shelter afforded from the surf to which the whole westward coast is exposed.

It is from this wholesome dread of the evil effects to be anticipated from traveling shingle that I have turned my attention to the advantage to be derived of having on our south-eastern coast Harbours of Refuge, or Naval Stations established in isolated positions, or at such reasonable distances from the shore as shall secure their not being in themselves the means of stopping the travelling of the shingle, or of creating suicidal operations, for such may be termed the condition of harbours, which contain in themselves the elements to work out their own destruction.

At Dover it is clear that the preservation of a harbour there will depend upon the continual seaward extension of gigantic moles to arrest the shingle on the west side, and the value of the position of Dover may warrant this annual expenditure.

In the professional observations and evidence which have been adduced in respect to the condition of the several positions which have been enquired into as to their eligibility as sites for Harbours of Refuge, I find no reference to the causes which have produced their condition. I find no observation that the cause of the eastern side of Beachey Head, being more shoal than the western side, or the existence of the Holywell Banks and general more shoal ground in Eastbourne Bay than at equal distances from the shore on the west side of Beachey Head, *arises from the fact of the eastern side being out of the true run of the flood-tide, or in an eddied state owing to the tide being deflected outwards by the projection of Beachey Head,* and that therefore the west side of Beachey Head, *irrespective of the protection from the prevailing gales,* is the best natural position for deep water in the present condition of the coast. I find that no attention has been directed to the *existence of similar influences at Dover, where the Bay on the east is found to be more shoal than on the west from the very same causes,* and in the case of *Portland Harbour, or Roadstead, the same influences have been again altogether overlooked, and that there has been no enquiry made, no observation offered, why the locality of the PortlandRoads is so much shoaler than that on the west side of Portland?* No enquiry has been made whether the creation of new works will still further increase the difference which is found between the soundings or depth on the east and west sides of the Isle of Portland.

The first object for the consideration of an engineer on finding a site for a harbour possessing the desiderata as to depth of water and position, should be *as to what cause the present natural depth is due?* and the second consideration should be *as to what will be the condition of the site as regards depth of water* on a change of the natural features taking place by the execution of new works, or by the present cause of the existence of sufficient depth of water being acted upon by the influence of new works?

I have already observed that the best natural position for deep water

must be on that side of any bay, which is exposed to the direct action of the flood tide. Practical knowledge will furnish numerous instances to prove the truth of this statement. Having mentioned the instance of Portland, I will add a few remarks in reference to that situation, because of its being an example where the difference as to depth exists in a remarkable degree.

In the bay on the west side of the Isle of Portland, we find in the presence of soundings of from 12 to 20 fathoms at low water, within half a mile of the shore, evidence of the powerful action of the flood tide to keep that coast or side of the bay clear of deposit, and we find, as per evidence before the Commissioners on Harbours of Refuge, that, even at high water, the surface of the current stands at a greater elevation than in the Portland and Weymouth Roads, or in the bay on the east side of the Isle of Portland. These phenomena could not occur if those latter places were not in the state of an eddy, or out of the true influence of the flood tide, and hence the cause of the existence of the small range of tide in Portland and Weymouth Roads, which even in spring tides is, as per evidence, only about 7 feet.

Hence again the cause of the existence of the current called, the "Race of Portland," is to be found in the difference between the level of the tide on either side of the Isle of Portland, the waters of the Western Ocean being heaped up, or accumulated by that headland and coast to the westward, and, on passing the west side of the Isle of Portland, are deflected towards the direction of "the Shambles," where a huge bank of shingle is deposited. It is but an off set or minor shore current, which taking an eddying course supplies the Bay, or Roadsteads of Portland, and Weymouth.

To similar causes may be traced the small range of tide in Poole Harbour, and referring to an example of tidal influence upon a larger scale we may say that the small range of tide on the eastern coast of Norfolk and Suffolk, and the presence of the sands lying off those coasts are due to the same influence, viz: the accumulation of tidal-waters created by the north-eastern coast of Norfolk presenting a check to the course of the tidal current and subsequent diversion seaward, leaving the eastern shore in a state of eddy, and supplied by a weaker current. It is from this cause that the flow on the eastern coast of Norfolk is little more than half that which is found on its southern shore.

From this difference of level between the current on the west, and that on the east side of the Isle of Portland, we ascertain the cause of the comparatively small depth which is found in the Portland Roads, the natural tendency of the current, being to therein deposit a portion of the sand and shingle, moved by the tidal current and waves.

To what cause then do the Portland Roads owe the moderate depth which at present exists, will be the next subject which naturally presents itself for consideration, and the reply is, that it is due to the back sweep from east and south-easterly gales, and in a small degree to a direct action from off shore gales, assisted by the natural seaward declivity of the bed of the bay.

As regards Portland as a station I have no hesitation therefore in classing it with those harbours likely to suffer deterioration as to depth, as the construction of a breakwater of great length on the east side of the Isle of Portland will be found to be warring against nature as regards the preservation of the depth which is now found in the Portland Roads.

With the eastward, or north-eastward extension of the breakwater so will be that of the eddy on the flood tide, and with that extension of the breakwater will be the loss of the back sweep and consequently that of the depth in the roadstead.

W. A. Brooks.
C. E.

*Guildhall, Newcastle-on-Tyne,*
*Jan, 21st, 1850.*

---

Latitude and Hour Angle.—*By simultaneous altitudes of two stars.*

52, *Lucas Street. Commercial Road,*
*Dec. 27th, 1849*

Sir,—The bill for the examination of the officers of the Mercantile Marine although faulty in many respects, has been productive of much good, by causing a general stir among the junior officers and apprentices of that service, convincing them of the necessity of gaining some knowledge of the theoretical, as well as the practical part of their profession. And it is very pleasing to see of late years, the leisure time of the youngsters on board ship, which formerly, was spent in idleness, or in reading trashy books, now devoted to study, and gaining a more extended knowledge of navigation.

In submitting the following simplification of a well known problem to you, it has occurred to me, that it may be found a useful problem for learners generally, and the practice of it would pass away many a watch far better than sleeping on the damp deck, laying the foundation for rheumatism in after life.

It will at once be perceived that in the practice of this problem (with the assistance of the bearings and distances of the stars, given in the first and second columns of the table) a respectable knowledge of some of the principal of the fixed stars, will at the same time be acquired. The first part of the calculation is an operation with which every navigator must be familiar, being the rule for finding the hour angle from the altitude, the latitude, and the polar distance; while the second part may also be found useful in computing the altitude of a celestial object, in finding the distance between two places upon the arc of a great circle, and in various other problems. The table was worked out for my own use, with the help of it and the I. O. U. formula. I have frequently found the latitude in ten minutes, while if I had to work out the problem by the old method, it would have occupied half an hour; and from the length of the calculation required, the opportunity was frequently neglected.

If you think, Sir, the following simplification worthy a place in the pages of your very very useful work, it is at your service; if not, I dare say it is not the first I, O. U. you have met with of little worth.

Yours very respectfully,

J. F. TRIVETT.

*To the Editor N.M.*

RULE.—In north latitude, select two stars (contained in the table) to the southward.

In south latitude, select two stars to the northward.

Having observed the altitudes at the same time, (or reduced them to the same time,) note that star which is nearest the meridian and call it the Inner star, and the other the Outer star, reduce the observed to the true altitudes, and write down in the following order.

The I nner Altitude
O uter Altitude
The arc U from the table

The order will be easily preserved by observing the rotation of the initials from the not easily forgotten I. O. U.

Proceed with these arcs I. O. U. as with an altitude, latitude, and Polar distance and find the hour angle, by the rule given in any Epitome of Navigation, or in your usual method of working. If this hour angle is found in time, reduce it into degrees and minutes of arc, and call it arc C, the difference between arc C, and arc A, or arc B, according as the outer star is first or second in the first column of the table will be arc D.

To the cosine of arc D add the cotangent of the outer altitude, the sum (less 10) will be the tangent of arc first. The difference between arc first and the outer Polar distance will be arc second. Then add together the sine of the outer altitude, the secant of arc first, and the cosine of arc second, the sum rejecting the 10s from the index will be the sine of the latitude.

*Table computed from the places of the Stars, Jan. 1st, 1849.*

| Stars Names and Bearings of 2nd. from 1st | Arc U. | Annual Var. | Arc A. | Annual Var. | Arc B. | Annual Var. |
|---|---|---|---|---|---|---|
| | ° ′ ″ | ″ | ° ′ ″ | ″ | ° ′ ″ | ″ |
| Antares (E¼S) Fomalhaut | 82 50 54 | — 8·3 | 120 27 2 | + 15·8 | 116 7 26 | —11 0 |
| Antares (E.N.E.) Markab | 104 26 29 | — 1·4 | 80 48 22 | —22·4 | 113 44 36 | — 8 6 |
| Antares (WNW.) Regulus | 99 55 47 | — 3·3 | 90 37 40 | + 17·1 | 114 43 24 | — 6·5 |
| Altair (W.¾N.) Arcturus | 81 12 9 | 0 | 70 57 00 | + 20·7 | 84 7 26 | —12 7 |
| Altair (W.b.S.) Spica | 97 53 50 | — 5·8 | 99 23 12 | —19·4 | 82 46 12 | —12·6 |
| Alphacca (W,b.S.) Regulus | 77 12 20 | + 1·0 | 82 8 24 | + 17·1 | 64 32 58 | + 10·1 |
| Arcturus (W¾S.) Procyon | 96 48 11 | + 0·5 | 81 29 6 | + 12·9 | 69 3 48 | + 20·7 |
| Spica (W¼S.) Sirius | 96 10 21 | + 14·1 | 108 5 8 | — 4·9 | 102 45 50 | —16·3 |
| Regulus (W¼N.) Aldebaran | 80 8 34 | + 0·2 | 75 27 21 | —10·1 | 79 31 1 | + 19·3 |
| Rigel (WbS) B Ceti. | 66 23 20 | — 4·3 | 106 56 31 | + 19·8 | 91 5 39 | — 4·8 |
| Capella (WSW.) Arietis | 44 7 12 | + 4·6 | 105 26 36 | —28·7 | 46 45 44 | + 11·5 |
| Arietis (WbS.) Markab | 43 36 2 | + 11·6 | 92 48 50 | —10·4 | 71 59 2 | — 5·4 |
| Altair (E⅓N.) Markab | 47 46 38 | + 0·1 | 78 13 5 | —18·0 | 91 34 25 | + 5 0 |
| Arcturus (EbN½N.) Vega | 59 1 36 | + 2·4 | 56 9 43 | —12·8 | 88 16 43 | + 25·3 |

NOTE.—In South Latitude the supplements of the arcs A. & B. must be taken.

EXAMPLE.—On board the *Iris* in north latitude, Aug. 27th, 1849, the observed altitude of Antares and Markab were taken at the same time, to determine the latitude, height of the eye 14 feet. Antares the inner star.

| | | | | | | |
|---|---|---|---|---|---|---|
| Antares or Inner Alt. | | | 19° 46′ | Markab's or Outer Alt. | | 36° 54′ |
| | | | 6 | Dip and refraction . | | 5 |
| | | I | 19 40 | True Alt. | O | 36 50 |
| I | 19 40 | | | | | |
| O | 36 50 | secant | ·026702 | | | |
| U | 104 26 | cosecant | ·013928 | | | |
| | 2)160 56 | | | | | |
| | 80 28 | cosine | 9·219116 | | | |
| | 60 48 | sine | 9·940975 | | | |
| Arc C | 51 10 30 | sin. sqr. | 9·270721 | | | |
| Arc B | 113 44 36 | | | | | |
| Arc D | 62 34 | cosine . . . | 9·663433 | | | |
| Outer Altitude | 36 50 | cotang . | 10·125516 | sine ... | | 9777781 |
| Arc 1st | 31° 36′ | tangent . | 0·788949 | secant . | | ·069700 |
| Outer Polar dist | 75 36 | | | | | |
| Arc 2nd | 44 00 | cosine . . . . . | 9·856934 | | | |
| | | Latitude | 30 25 | sine ... | | 9·704415 |

And by the addition of three more logarithms (which may be taken out at the same openings of the book required for finding the latitude alone,) the hour angle of the outer star can be obtained; and hence the time at ship. Therefore, if the time when the altitudes were observed, had been taken by the chronometer, the longitude might be found by the same observation.

RULE.—Add to the secant of the latitude found the cosine of the outer altitude, and the sine of the arc D, the sum rejecting the tens from the index, will be the sine of the hour angle of the outer star.

EXAMPLE.—On board the *Iris*, at the entrance of the British Channel, Sept. 17th, 1849, when a chronometer which was slow of Greenwich mean time 11m. 31s·8 showed 6h. 59m. 17s. the altitudes of Altair and Arcturus were taken to determine both latitude and longitude: height of the eye 14 feet. Altair the Inner Star,

| Time by chron. | | | Altair's alt. | | Arcturus's alt. |
|---|---|---|---|---|---|
| 6h, 59m. 17s. | | | I 46° 53′ | | O 29° 47′ |
| 11 31·8 | | | 5 | Dip + ref. | 5 |
| 7 10 48·8 | Greenwich M. T. | | (I) 46 48 | True alt. (O) | 29 42 |
| | ° ′ | | | | |
| I | 46 48 | | | | |
| O | 29 42 | secant | ·061164 | | |
| U | 81 12 | cosecant | ·005143 | | |
| | 2)157 42 | | | | |
| | 78 51 | cosine | 9·286408 | | |
| | 32 3 | sine | 9·724816 | | |
| Arc C | 40 27 20 | sin sqr. | 9·077531 | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ° ′ ″ | | | | | | | |
| Arc B | 84 7 26 | | | | | | | |
| Arc D | 43 40 | cosine | 9·859360 | | | sine | | 0839140 |
| Outer Altitude | 29 42 | cotang | 0·243828 | sine | 9·695007 | cos. | 9·938836 | |
| Arc 1st | 51 44 40 | tang | 10·103188 | secant | 208200 | | | |
| Outer P. dist. | 70 1 40 | | | | | | | |
| Arc 2nd | 18 17 | cosine | . . . . | | 9·977503 | | | |
| | ° ′ | | | | | | | |
| Latitude | 49 27 | | | sine | 9·880710 | sec. | ·187012 | |

| | | |
|---|---|---|
| | h. m. s. | sine 9·964988 |
| Hour angle of the Outer star | 4 29 12 | |
| | 14 8 47 | right ascension of Outer star. |
| | 18 37 59 | right ascension of meridian. |
| | 11 45 13 | sidereal time at mean noon. |
| | 6 52 46 | approximate mean time. |
| | 1 7 | retardation |
| | 6 51 39 | |
| | 3 | acceleration for long. 5° W. |
| | 6 51 36 | mean time at ship. |
| | 7 10 48·8 | mean time at Greenwich. |
| Or 4° 48′ 15″ W. longitude. | | |
| | 0 19 13 | longitude in time. |

[The principles of the solution of the problem for obtaining the latitude are shewn in "Com. Shadwell's Tables for facilitating the determination of the latitude at sea", noticed in our last year's volume.—Ed.]

---

## Outline of the Voyage of H.M.S. Enterprize and Investigator to Barrow Strait *in search of Sir John Franklin.*

(Continued from page 90.)

On the 31st the thickness of the ice was ascertained to be nearly six feet through in many places. A signal-staff with a large black ball at its top was to-day erected on the brow of North-East Cape.

A capital joke was played off rather injudiciously, I think, on one of the most persevering of our sportsmen. An excellent imitation of two grouse, had been made in snow, and placed in a situation where it was rightly considered they could not be unobserved. A day passed by and the decoy birds were unheeded, but on the next the person for whom the deception was principally intended, descried the game, and gaily retraced his steps for a gun, leaving his companion, who had intentionally led him to the spot, to keep an eye to the birds, lest they should be off, or fall into the hands of others. Being at no great distance from the ship he was not long in returning, fully equipped with the means of destruction; and on getting within shot, fired; but the birds remained immov-

able. Thinking he might have fired at too great a distance, he cautiously approached them, and again "blazed away," and the grouse not flying, he naturally supposed they were shot, and ran up to bag the game; when he discovered that he had been firing with unerring aim, at two lumps of snow. His companion lay stretched on the snow laughing, while the whole scene was witnessed from the ship, occasioning unceasing laughter; but, like a truly sensible man the dupe himself fully entered into the joke, and enjoyed the fun as much as any one.

Two men are now lying seriously ill in their cots, one of them afflicted with scurvy, the first case of that malignant disease, so much dreaded in these voyages, which has appeared on board either ship. The man who is suffering from its effects has been doing the duty of captain of the hold, and his occupation being principally inboard, particularly during the winter, when the warm air stove was looked after by him, tended probably in a great measure with a bad constitution to promote the complaint.

We have all observed that those persons whose duty requires them confined to the ship, by no means appear so healthy as that part of the crew who are continually occupied on the ice; and I believe in order to ensure health that a greater degree of exercise is required in these cold climates, than in more temperate regions.

Three months more provisions were landed at Whaler Point from each of the ships, completing the depot there to twelve months of all species, except spirits.

Our pinnace, which at the beginning of the winter had been placed on the snow ahead of the ship, was transported to the Point, on sledges drawn by the two ship's companies for the purpose of being lengthened. She had settled into the ice, and was entirely surrounded by snow; and being firmly frozen in it was a job for all hands to remove her.

From the appearance of the ice to which she was so securely bound, it would certainly seem that moisture from the sea water penetrates the pores of the ice, after the first heavy falls of snow; and as the winter advances becomes itself converted into ice: for otherwise it could not happen, that the boat would have been frozen in two feet deep; the ice at the time she was placed on it being a foot thick, and not likely to have cracked or given way with the mere weight of a ton, or even admitted any water over its surface.

In clearing out the ship to correctly ascertain the remains of the provisions, stores, and fuel on board, a cask of vinegar, which had been stowed in the fore-hold, was found to be frozen perfectly solid, and to have burst the centre piece in the head of the cask. But the following, which may appear to partake of the "traveller's story," is, however, true, and was witnessed by myself as well as many others.

In preparing for the winter, in order to avoid going to the holds as much as possible, a sufficient number of salt meat casks were transferred from the hold to the deck, as were calculated to last for the winter months. The first that was required for use was found on attempting to open it to be frozen into one perfect mass; the hoops and staves were

removed with a pickaxe, and the meat was separated piece by piece with a cold chisel and hammer; in doing which the edge of the chisel was turned, and before the pieces could be altogether parted, it was necessary to be placed alongside the warming stove, where it was ever after kept when a cask was wanted.

To those who have never witnessed the effects of cold many degrees below zero, the tenacity with which ice binds bodies together would seem incredible; but this affords an instance of its unyielding strength.

I omitted to remark that on the 24th of last month, an accident happened in a most extraordinary manner to one of the marines of the *Enterprize*, employed with the sledge party in laying out the depot of provisions in the vicinity of Cape Seppings.

The party had halted and the people were taking their dinner (cold indeed ! !) which had been previously cooked. This man who is tall and well proportioned was walking to and fro to keep himself warm, enjoying his pipe; when of a sudden he slipped, fell broad on his back, and cried for assistance, being unable to rise. On examining his leg of which he complained, it was found that the small bone adjoining that of the shin, had been broken, and was causing him acute pain.

Being perfectly unable to walk he was placed on one of the sledges, well wrapped up by his shipmates with jackets, &c., and conveyed to the ship as speedily as possible.

The possibility of a similar occurrence happening, ought in itself to deter persons from straying away from the ships alone, for without assistance, in less than half an hour, one would be frozen to death. Yet I am as prone to go away by myself as any.

16th. To day a seaman named Grey, belonging to the *Enterprize* died; for some time previous to his illness, he had been very melancholy, and from the time he was placed on the sick list never once rallied.

The snow with which the upper deck was covered was removed during the first part of the month; and the main hatchway taken off for some hours daily, making it cold below, but unavoidable just now the holds are being restowed.

The gravelling along the line of the intended canal, was completed in April: having been extended to the harbour's mouth. The foxes have now entirely disappeared.

On the 21st a solitary snow-bunting was seen, which was shot, and placed among the other collections of specimens in Natural History. Its plumage was very thick and pretty. This was the only bird seen during the month.

30th. The quarter-deck awning was taken off on the last day of the month; but although the sun at this time is very bright, it makes but little impression on the snow. Just about the ships, where there is a deal of communication it thaws in the hottest part of the day, but soon every where freezes again. The thermometer throughout the month has remained very low, and only risen above zero the last two days for a short time.

To-day another poor fellow of the *Enterprize* died. His name was

Jenkins, and it appears soon after entering Davis Strait, in securing the ship alongside an iceberg, he fell and internally injured the shoulder joint. The man repeatedly complained of the pain occasioned him, but as no symptoms of a blow were visible, and none of the appliances administered relieved him, it was generally supposed he was skulking. At length however, the cause of his suffering appeared in a tumour breaking out, which the skill of the medical men was unable to assuage. The discharge gradually increased, reducing him rapidly, when amputation was contemplated; but it being feared his state was too weak to admit of the operation being performed, it was not resorted to: and after a most lingering and painful illness, he breathed his last almost imperceptibly on Monday afternoon.

Here was a fine young man in perfect health, and animated with the same spirit which invigorated all at the commencement of our voyage, cut off by an accident considered trifling at the period of its occurrence, and but little noticed even by himself for some time after it happened, which eventually proved his end. Such is the uncertainty of our existence, and yet surrounded by many dangers how unprepared too many of us are to quit this world. Busied with plans and bright expectations for the future, these warnings pass by unheeded, and we deceive ourselves with the prospect of enjoyments, never in all likelihood to be attained, or if possessed, then found to yield none of that tranquillity of mind we so ardently desire.

He was buried on the 4th of May, alongside the graves of his former companions.

May 3rd.— A party of two officers, and eighteen men, were sent from each ship, having with them four days' provisions, to convey farther along the coast to the westward, the small depot left under Cape Clarence last March: and a day or so after a similar number of persons proceeded in like manner down Prince Regent's Inlet, with the depot left under Cape Seppings.

On the 12th William Cundy, captain of the hold of the *Investigator*, died. He was a weak, ill-made man, and his recovery despaired of soon after he was taken into the sick bay, his first illness was scurvy, but many unseen causes hastened his death.

May 12th.—A present of a pair of boot hose was this day made to all hands. On the return of the parties detached from the ship on the 3rd and 8th of May, many were suffering from snow blindness, and others had their faces swollen to an extraordinary and unusual size; the cheeks protruding so as almost to conceal the eyes. This disfigurement, which continued only for a few days, was attended with but little pain, yet it was most unsightly, and completely altered the appearance of the face. It was caused it is supposed, by long exposure in the cold wind, and the rays of the sun glancing powerfully from off the snow; for, when the face was screened this was partially avoided. I have myself frequently felt when walking for any considerable time on the ice, a burning sensation which soon passed off in getting into the shade: and although the sun had not sufficient power to melt the snow, yet it tanned very much the

complexion of all who were much exposed; and could our friends at home have seen us, they might have imagined instead of the Arctic Regions, that we had been making a sojourn in a tropical climate.

The glare reflected from the snow being less powerful at night than during the day, the hour fixed for the travelling parties to commence their labours was 6 P.M., when they continued walking for 10 or 11 hours, usually performing in that time, unless the snow was deep, a distance of 10 miles. On leaving the ships it was customary to hoist the colours, and give them a cheer at parting.

When they came to a halt, the tent (capable of allowing eight persons to sleep in) was pitched, the supper warmed, and preparation made for "turning in:" for after a weary journey, and with the thermometer at zero, none were disposed to remain long in the cold. A buffalo robe being spread along the tent, each person changed his boots for a pair of warm fur ones, and wriggling himself into a blanket, sown up at the sides and bottom, in the manner of a sack, stretched out, and pulling over all another skin, the whole party in a few minutes were in a loud snore; one or other occasionally starting up on getting too tight a squeeze from his neighbour; since it was necessary both for warmth and the stowage of the tent when on the tramp, that it should be as small and compact as possible.

Each man whilst employed in this manner, received either a pound of preserved beef, or a pound of pork every day alternately, and the customary allowance on board the ships, except tea, for which was substituted pea-soup. This was boiled on board, and being made very thick, was poured into stout canvass bags, each holding about two gallons; and on exposure in the air for a few hours froze perfectly solid. When required for use, as much was placed in boiling water as wanted, and allowed to remain on the fire for a few minutes, and afforded to each one a pannican of excellent hot soup for supper.

On the 15th of May, Sir James Ross, and Lieut. Mc'Clintoch with twelve men, set out on a travelling excursion to the westward: Captain Bird, three officers, and a fatigue party of twenty-four men, accompanying him to Cape Bunny, a distance of fifty miles, with four days' provisions, to be left there for Sir James's use on his homeward march.

The party proceeding with Sir James, were provided with thirty days provisions, so arranged for each day, that no difficulty or delay might be caused in separating the allowance.

Having given them a cheer at parting, Captain Bird returned with the persons who had been required to transport the depot to Cape Bunny, and reached the ships on the night of the 23rd.

One time, when the whole party was advancing, a bear espied them, and came trotting up within a few yards of the sledges: all the guns were in immediate requisition, but out of ten barrels nine missed fire, and Bruin only getting a slight wound which apprized him of danger, hastily beat a retreat from so considerable a number of enemies.

The accident of the guns not going off, was in consequence of the muzzles having been placed in the snow, when coming to a halt; and the

whole of it not having shaken out when removed, dissolved, and trickled down to the charge.

On Captain Bird's return, smaller parties were dispatched to the following positions: Lieutenant Barnard with four men, proceeded on the evening of the 31st of May across Barrow Strait over the ice to Cape Hurd, leaving there a cylinder, and erecting over it a conspicuous cairn. This journey was accomplished in six days, the distance being fifty miles each way.

June.—Lieutenant Browne, of the *Enterprize*, with a similar party, was sent across Prince Regent's Inlet, with instructions to deposit a cylinder on the nearest head-land. This was a most tedious undertaking, for the ice was very irregular, with much soft snow on it, and so hummocky, that considerable difficulty was experienced in dragging the sledges: besides, the weather was most boisterous, and the wind directly opposed to them, driving before it a deal of drift, and preventing the party advancing one entire day.

Lieutenant Robinson with six men, proceeded down the west shore of Prince Regent's Inlet, being provided with twenty-one days' provisions, (packed on three small sledges,) tents, spirit-lamp, &c.; with instructions to proceed as far to the southward as practicable, leaving at his furthest, the cylinder with which he was entrusted.

He returned with his party on Sunday afternoon the 17th, having reached Cresswell Bay, a little beyond Fury Beach. He described the road they had to follow as most laborious for his people: in many places the ice having been driven forcibly on the shore, and rendered so uneven that the sledges not unfreqently had to be carried, causing one to be destroyed and rendered altogether useless, from the suddenness of the jerks it received. The snow too was very soft, and so deep that at each step they sunk into it half way up to the knees, and on getting to a hole, as high as the waist. One of his men to add to the difficulties of the journey, became lame, and two others snow blind, so that on his arrival at Fury Beach, he was compelled to stay there a day.

At Fury Beach he found the house, called "Somerset House", still standing, in which Sir John Ross passed the winters of 1832-33, when unable to get out of Barrow Strait; together with a quantity of provisions and stores, which had been left there by H.M.S. *Fury* in 1827. On opening some of the packages containing flour, sugar, and peas, they were all found to be in excellent preservation, and the preserved soup (no meats remaining) as good as when manufactured. This latter was described by all as most delicious, and in flavour and consistency, superior to any of our preserves of the same kind.

After a day's rest they resumed their journey, amidst a dismal snowy and windy day, leaving the "lame duck" in charge of a man at Fury Beach; and reached a hill on the N.W. side of Cresswell Bay, where was deposited the cylinder, a cairn being erected over it, and a wooden cross placed on its top.

June 15th.—On Friday at 2 P.M., poor Mathias assistant-surgeon of the *Enterprize* breathed his last. He died of a consumption, which

imperceptibly gaining on his strength, brought him to the grave. He was a young man of much talent and great promise, and from his amiable disposition and acquirements, his death was universally lamented. He was buried on the east side of the harbour, alongside the graves of his shipmates; the officers of both ships paying the last sad tribute of respect to his memory, in following his remains to the grave.

On Friday night, the 22nd June, Sir James Ross's party returned. They had proceeded west, along the northern shore of North Somerset, a short distance beyond a headland, named by Sir Edward Parry in 1819, Cape Rennell; when here finding the coast-line trend directly south, they followed its direction a considerable distance, their last observations, placing them in lat. 72° 38′ N., and long. 95° 40′ W.

Being apprehensive that their provisions would fail them, before they got to the depot at Cape Bunny, Sir James was compelled, I believe, most reluctantly, to retrace his steps. This party travelled full 400 miles, of which a considerable portion of the country they passed over is new discovery.

The men were completely knocked up, and one of the party was brought back on a sledge; the haggard looks and the attenuated forms of all of them, being certain evidences of the excessive fatigue, and privations they had undergone, in a pedestrian journey surpassing in distance, all those accomplished in former expeditions.

About the 20th June, a small water bird called the doveky, had become so numerous, and so many were daily shot by those who troubled themselves to go after them; that shooting parties from each ship, consisting of an officer and marine, were established at Whaler Point, where they remained the whole week, returning on board on Saturday night. In a week or so after this the loon, a much heavier bird, became more plentiful than the little doveky, and from this time to the middle of August, so successful and untiring were our sportsmen, that the crew received each a bird per man a day.

The account kept on board the *Investigator* shewed the number of birds killed to have amounted to about 4,000, and yielding near 2,500 pounds of meat. But I imagined more than this was obtained, by the addition of what was shot by individuals for amusement, and not always noted.

Both the loon and doveky are water birds, and resort to this high northern latitude in the spring to breed.

Long before open water was seen an extensive crack stretched across the mouth of the harbour, at first not wider than four and six feet, but gradually opening as the summer season advanced. In this water which was the first that appeared, these birds resorted in great numbers; and until latterly not much difficulty was found in shooting them. Their flight is uncommonly swift, and in consequence when on the wing they were most difficult to shoot; so to economize ammunition, and obtain several at a single shot, they were allowed to settle on the water, and then became certain of destruction.

Along the edges of the crack, it was not after a short time altogether

safe, for the continued action of the water undermined the ice at the edges, and rendered it very rotten; so that many had a dip, and unfortunately three of them lost in this way their guns. I had once the misfortune to get a sousing; but had taken the precaution to secure my gun with a lanyard, or I should assuredly have lost it; for the depth of the water was great, and so excessively cold, that the gun and all else was forgotten in the struggle to get out, which frequently was no easy matter. A few of both the king and eider duck were shot, but so wild were these birds that it was seldom any were brought in.

This game, much as it might have been despised elsewhere, was reckoned by us the greatest luxury, and was the means of giving renewed life and vigour to the crews of the two ships.

In the beginning of June a narrow space in the ice was sawed out around the ships to free them of it, and allow them to float, in order to properly arrange their trim. The opening of the canal also towards the harbour's mouth which had been marked out with boarding pikes and partially gravelled, was taken in hand so soon as the water ceased to freeze; but this was a most arduous undertaking, and which took in its accomplishment two entire months, the distance being somewhat more than a couple of miles. The ice saws which are about twenty feet long, made of plate iron with teeth an inch or so in length, were suspended by high triangles, and worked with a pulley, or what is understood by bell ropes. On the saw being placed through the ice, to the lower end of it was attached a heavy weight, commonly a thirty-two pound shot; through the upper part a handle was passed, which two or three men worked by forcing the saw down so soon as the six or eight people at the bell ropes should have risen it to the knot, purposely made in the rope; and in this way the saw was passed quickly up and down; the men being up to their knees in water, but frequently enlivening the dull and heavy work with the joyous and inspiring songs so common and well known to sailors.

After the edges of the canal had been cut through a certain distance, it was necessary to again cut the pieces diagonally so as to allow them to be floated by the ship, before she could be moved down, making the entire width of the passage fifty feet or thereabout. In sawing the canal six or eight triangles, with saws appended, were kept continually going; but the ice was so surprisingly thick and solid, that in appearance it more resembled large blocks of marble than anything I know to liken it to.

On the eastern side of Port Leopold was a steep hill about 1,000 feet in height which commanded an extensive view of the ice around for fifty miles. To the top of this an officer from one or other of the ships was sent every morning after breakfast to observe the state of the ice, but it was the 16th of July before the first water was observed, and then it extended only for a short distance in the neighbourhood of what we called North-east Cape in the manner of a large pond, and was not more than sufficiently large for a single ship to work about in.

The appearance of this after having been immured in the ice for several

successive months, with no other object in sight than an unvarying surface of snow, and without seeing a living soul save ourselves, afforded all a degree of joy that it is impossible to describe; and induced us to hope and expect a speedy departure from our present disheartening situation. But we were doomed to spend another long and tedious six weeks where we were, and in that time the open water increased but very slowly; and no sooner did the ice in one direction clear away a little and expose to our view the "glad waters" we had so longed to see, than it again overspread what we had beheld with such extreme delight.

As it could not now be long before we should leave our winter quarters, if we were indeed to be released at all this season, the carpenters of the two ships were employed in lengthening the *Investigator's* steam-launch; which, with her machinery and fuel, a store of twelve months provisions, and a house constructed of the spare awnings, with which the ships were provided, were left at Whaler Point in Port Leopold. Within this house was also placed some carpenter's tools, blankets, sleeping bags, stoves, and many other essential articles, with a full account of the object of the voyage and our future intentions.

Here then should any of Sir John Franklin's people reach, they would find the means of subsistence and escape: or should it have happened that in proceeding to the westward, as we had fully hoped and calculated on doing, had we there ourselves got hampered, Port Leopold would have been a place of refuge for us to have fallen back upon.

The ice in the harbour had become flooded in numerous places from the melting of the snow on its surface, and where this was the case it had rotted away considerably, and in many spots completely through. When walking therefore it was latterly unsafe, to venture off the snowy part which remained perfectly solid. But it was a most circuitous route to gain any definite spot, for the firm ice being divided in this manner into innumerable islets, one was induced to avoid a long circumambulation to wade through the water, yet it was very unsafe, and nearly cost me my life, for the ice though six feet through where free from water on its surface, had so wasted away in the pools, that it broke through with my weight in crossing one of them, and it was with very great difficulty that I managed to get out. For it must be known that during the summer months when the thaw is going on, it is necessary to wear large and heavy water-tight boots, reaching up to the thigh, and weighing not less than seven pounds. Falling through, therefore, under such circumstances, and with a quantity of heavy clothing on besides, renders it by no means an easy matter to lift oneself out of the water, which from the enormous quantity of ice is painfully cold.

On Saturday afternoon, the 18th of August, the ice in the harbour was observed to be in motion and the canal which was now carried near the harbour's mouth, to be opening considerably. The ships were instantly warped down, and that same evening we gained the water without Port Leopold; but beyond it again there appeared one endless extent of heavy ice, setting down Prince Regent Inlet. We remained attached to the harbour floe for some days, unable to get into the lanes

of water which were to be seen in Barrow Strait. Once we attempted to do so, but the ice about Port Leopold was considered too compact to allow of the ships pushing through it, so we returned and anchored in the harbour, which had now become perfectly free of ice.

All were at this time in the most distressing state of anxiety, and every report of the state and alteration of the ice was listened to with intense interest; but twice after Port Leopold was clear of ice, and without any apparent cause, did the floe drive into the harbour, seeming as though it would remain, and after continuing in motion for some hours as suddenly clear out again.

The 27th and 28th of August it blew fresh from the southward and westward, and parties from one or other of the ships were sent to the top of the highest eminence to ascertain what prospect there was for our sailing; but it was the 29th before that was deemed practicable, and accordingly at two in the afternoon both ships weighed, and with a strong breeze worked out of the bay, and stood to the northward. The next morning the weather was extremely thick and dirty, and no opening could then be seen in the ice. Towards evening it cleared up a little, and the *Enterprize* pushed in where it seemed loosest, and we reached some distance to the northward; but the appearance of the ice was most unfavourable, and but little water was anywhere to be seen: the ships heads, however, were directed to the northward and westward and we gained something by forcing and warping. In the afternoon of the 31st, the ice opened out considerably, and the ships were running along its edge with a light breeze and smooth water, taking the utmost advantage of the favourable change: but the next morning, the 1st of September, brought thick snowy weather with a strong breeze, driving the ice about rapidly and which was fast closing in upon us: the *Enterprize* was first beset, and soon after we were also completely surrounded, and by noon that day little or no water was to be seen in any direction.

For a few days we seemed scarcely to vary our position, and as Prince Regent Inlet was now wide open to us, and the set was taking the ice in that direction, our fears were that we should be driven in the pack down that dangerous channel: at length, however, it was apparent to all that we were setting to the eastward, and that the land on the northern shore about Maxwell Bay, and Leopold Island which we had kept in view for several days were faintly discernible. At first we were swept nearest to the northern shore, but after passing Cape York, and as we approached Admiralty Inlet, our distance off the southern land, was not more than ten or fifteen miles, if so much, and the drifts of the ships daily increasing.

By the middle of the month we had reached Lancaster Sound, but the winter was fast coming upon us, and the thermometer at night falling to near zero, firmly cemented together the cracks in the floe, and few of the most sanguine among us could hope for a release from this forlorn situation.

From either shore of Barrow Strait, a distance varying from forty to

sixty miles, the ice extended; and no limit could be seen to it in the eastern and western directions. A few pools and lanes of water, were occasionally reported at a distance, but these closed and opened with the pressure of the immense body of ice, which was impelling us forward.

When in Lancaster Sound, it blew a violent gale from the westward, which lasted for some days, but we were still urged onwards down the west shore of Baffin Bay; and at the very time when our prospects looked most desperate, we were surprised and delighted on Sunday night the 23rd September, to hear when in our bed-places, a movement of the ice along the ship's sides; which next morning became more perceptible, careening them suddenly, and splitting up in various places around us. Such unlooked for good fortune, aroused all from the apathetic listlessness our dreary life had produced, and each one exerted his energies in liberating the ships; the rudder was again speedily reshipped, which for the last three weeks had hung suspended across the stern. The sea was once more in sight within a few miles of us, and every sail was set, to make way against the broken field of ice which opposed us. For several hours were we banging through it, at times completely brought up, but after a pause, with the assistance of warps, ice chisels, axes, &c., again forging ahead. The wind towards night fortunately increased, but brought with it much snow, and soon after dark to the joy of every one on board, the *Investigator* reached the water. The *Enterprize*, however, was still in the pack, and all that night our relative positions, were made known to each other by the display of rockets, and blue-lights. The next morning was clear and cold with little wind, and our consort but a short distance within the pack, from which she did not get clear till noon; we then closed her, congratulated each other on our escape, and to the unspeakable delight of all, the red-ensign of Old England was seen flying at the commodore's mizen as a signal for home.

Thus were we freed from one of the most critical situations in which ships could be placed, without having sustained much injury, after having been immoveably beset for nearly a month, and driven with the ice in that time a distance of 250 miles, under circumstances in which no human power could avail us anything.

---

## Turkish for Tars.—No. III.—*By Mahmouz Effendi.*

(Continued from page 81.)

"Once upon a time," as the storytellers have it,—and not so far back as the reign of the First George— certain fortunate personages, who then stood high in authority, found themselves suddenly in want of an *Englishman* who understood the Turkish tongue sufficiently to fill an office connected with the British Embassy at Constantinople. With

very considerable difficulty, and after indeed exertions almost equal to the labours of Hercules, their desire was at length gratified, and *one* Briton *was* found who could be positively pronounced equal to the post! Had, however, a second been required, the whole Empire could not at the moment have furnished that second individual. This, "gentlemen of the watch below", is a literal fact! Now, in the happy reign of her Majesty Queen Victoria, (God bless her,) matters may or may not be in a better condition. At all events the Interpreters at this hour at Constantinople aiding and assisting Sir Stratford Canning, the best English Ambassador Turkey has seen for many a long day, are not Englishmen, but erudite Levantines. They are not mere cockneys, not men whose brains in early youth are of course ever clouded and deteriorated by sea-coal smokiness on the banks of the imperial drain-receiving Thames. No doubt the Anglo-Orientals do their duty well in their posts at Constantinople, and truthfully and faithfully; the very name of a Pisani is guarantee for that; but still we do not want the grandsons of Levantines, however worthy, to look up to a *Terdjumanlik* as a strictly entailed property, and to expect to be some day as great men under the British Flag as their lucky and respected grandfathers. No, no, *il faut changer tout cela, mes amis.* England must yet have a *nizami-djedid* as well as Turkey, in diplomacy at least, if not in her army.

When on the occasion above referred to, it was seen at the "Foreign Office" that, but *one* solitary Englishman could be found conversant with Turkish, ministerial eyebrows were arched in astonishment, and a rumour oozed out, and became current at such of the few west end clubs as then existed, that an Oriental College, a Mediterranean Oxford, was forthwith to be established at Malta; and that the "Foreign Office" was thus about to turn over a commendable new leaf all seemed glad. It was also whispered approvingly that as the East India Company could always with ease train up *their* officers in Persian, and Hindustani, and certain other crooked tongues, the British Secretary for Foreign Affairs would now *Deo Volente, college or no college*, not be outdone, but have *his* own regular John-Bull-bred *élèves* and office-bearers crammed with Turkish and Arabic, aye, and with Persian to boot; and, this done, his Excellency would send all foreigners to the right about.

The wish might in the first instance have been but "father to the thought"; for even now in 1850,—which is not yet the end of the half century,—Malta is without its "Oriental College". And were a coaxing well-displayed advertisement inserted to-morrow in the *Times, Post, Chronicle*, or *Daily News*, declaring that all persons "born in England," and "conversant with the Turkish Tongue," who would repair to Downing Street on the second, not the first day of next month, (inasmuch as it is April), should then and there "hear of something to their advantage" we question whether one poor single street-cab, one "Patent Hansom," would not be found sufficient to contain all the applicants, and indeed not without room to spare.

The Turkish tongue is really and truly altogether neglected in England, and "more's the pity". Nevertheless, that is no reason why our Blue-

jackets should be left quite in the lurch, and therefore, in a "small way", we shall at once hand them a few "nuts to crack."

Blue-jackets care not we imagine for the niceties of Oriental tongues; they do not search a Dictionary to see how *extradition* is translated into the *Ouighour;* but they still desire to know the Turkish for the cargoes they carry to Turkey, the daily food they wish to buy there, the assistance they require, the pleasures they seek, and in short for all the most pressing wants of the road ashore and afloat. They feel that it is too bad to be altogether at the mercy of foreigners.

In the preceding articles, in the *Nautical* for January and February, (p.p. 34, and 79,) we have given a short list of "naval terms," and another of "exports and imports." What, shall we now proceed with our grey goose quill to subjoin?—*Voyons.*

Sea-air is proverbially famous for creating an appetite, and on *terra firma* a litle jolting in the saddle, (and sailors are fond of equestrianism,) will seldom impair the digestion of a true Tar*

If he halt, then, during a spell ashore at the "Strangers' House" (which every village in Turkey sets apart for passing travellers,) the names of a few table necessaries cannot be out of place. He may now and then have to ask for them, either from his own native attendant, or of a bakkal,† who if there be one in the village will be sure to be among the very first paying respects to the *milordos*; and every one is a *milordos* who simply travels for pleasure.

| *English.* | *Turkish.* |
|---|---|
| Table | Sini |
| " | Peshkoun |
| " | Trapezè |
| Table cloth | Sofra peshkiri |
| Napkin | Fl-mahramasi |
| " | Destèmal |
| Knife | Bitchak |
| Fork | Tchatal |

| *English.* | *Turkish.* |
|---|---|
| Wine | Sherrab |
| Spirit | Raki |
| Soup | Tchorba |
| Fish‡ | Balik |
| Meat¶ | Et |
| Rice | Perindj |
| " | Rouz |
| Pillaff | Pilav‖ |

* Among the feats of horsemanship performed by Englishmen in the East, may be mentioned the recent exploit of Lieut.-Colonel Townley, who pending the Russo-Turkish differences of 1849, was sent from London to Constantinople with despatches. This gentleman then rode 850 miles over Turkish roads, and on Turkish post-horses, in little more than five days. An instance, indeed, of "hard pounding" as the Duke said at Waterloo, and one that a regular *Tatar* might not be ashamed of.

† A bakkal is a chandler, selling coffee, sugar, salt, dried fruit, candles, oil, soap, firewood, charcoal, etc.—A most useful man to the traveller in Turkey.

‡ Constantinople advices dated January 26th, 1850, make much mention of prevailing snow-storms. "The violence of the north wind was also such that houses were blown down and the *fish driven to the shores of the Bosphorus in such quantities that they were taken by the hand*".—*Daily News*, Feb. 13th. And the *Times* of Feb. 15th, quotes a letter from the same capital giving the temperature during the storm of from 10° to 12° Reamur, and adds that many persons have been found frozen to death.

¶ See *Words for the Windbound* for a list of several hundred articles of food, alphabetically arranged, in English and Turkish.

‖ Wheat or *ble monde* is sometimes used in a soup or pillaff instead of rice. Such wheat is called *bourghoul* or more commonly *bulghour*.

| *English.* | *Turkish.* |
|---|---|
| Spoon | Kashik |
| Plate | Tepsi |
| " | Tchanak |
| " | Thabak |
| Salt | Touz |
| Pepper | Biber |
| " | Fulful |
| Long pepper | Dar fulful |
| Vinegar | Sirkeh |
| Mustard | Khardal |
| Bottle | Boukal |
| " (leather) | Mathara |
| " (wooden) | Yatouk |
| " | Tchiotra |
| " (glass) | Shishè |
| Jug | Bardak |
| Glass | Kadeh |
| Water | Su |
| Hot water | Sidjak su |
| Cold water | Soouk su |

| *English.* | *Tunkish.* |
|---|---|
| Persian pillaff | Adjem pilav |
| Fruit | Yemish* |
| Cheese | Pëïnir |
| New cheese | Tchair pëïniri |
| Bread | Eckmek† |
| Clotted cream | Yahourt |
| " | Kymak |
| Lemon | Limoun |
| Water-cress | Su-tèrèsi |
| " | Tèrè-oti |
| " | Yuzerlik |
| Coffee | Kaveh |
| Coffee-pot | Kaveh-ibrighy |
| Milk | Soud |
| Coffee-cup | Finjann |
| Sugar | Shecker |
| Pastille | Tensouf |
| Wash basin | Leïen |
| Soap | Saboun |

In any trip into the interior of Turkey, the traveller should carry a small packet of tea (*tchai*) with him; for when he requires it, it is not up the country always to be procured. During a ride, coffee is assuredly the more refreshing of the two beverages; but once *dismounted for the day*, most Englishmen, perhaps, from early habit, find tea a greater luxury; and as horse exercise in the East is apt to fever their western blood, tea will often be sighed for as a "cooler" and "reviver".

And, the traveller should by no means neglect to carry the means of striking a light, even if not himself addicted to smoking, but being on

* *Agrumi* is a Levantine name, for every species of fruit of the orange and lemon kind; and *avenk* applies to grapes or other things hung up to dry or preserve.

† The monopoly of supplying with flour for the next 25 years the troops and state necessities of the Pashalic of Smyrna is now vested in the "Smyrna Steam Flour Mill Company", in which the Sultan himself, and his mother, are said to hold large stakes. Messrs. Joyce and Company of the Greenwich Iron Works, built for this Association, in 1849, a Steam Flour Mill, and two engines of 30-horse power each on the principle first discovered by Arthur Wolf, and having fourteen pairs of stones driven by the same horizontal shaft. To attend to which *one* man only (an Englishman) will be required. The mill is to be erected on the sea coast, and as all the steam is to be made from salt-water, the boilers, &c., have been lined with bell-metal to prevent the bad effect of the brine. The expense of fuel will not exceed 3lbs. of coal, or about one half-penny per horse-power per hour.

It may have been hitherto generally unnoticed that Smyrna, although the great depot for the corn of Asiatic Turkey, and almost within hail of a score of grain-growing islands, and being also a corn-exporting port of the first class, was itself indebted for its supply of flour to its own windmills, (insufficient in number) or the distant Yankee miller. The steam-mill, already on its passage, may now, however, lead to a great alteration in these respects. It is singular that while steam-saw mills, &c., have been used for years in the Dockyard at Constantinople, a steam-flour mill has now only, in 1849-50 for, the first time been thought of.

the contrary a lover of the pipe-proof principles enunciated in King James's celebrated "Counterblast to Tobacco." For this purpose a *tchentè*, a sort of pocket tinder-bag, may be purchased in the bazaars, together with a *tchaki*, a pocket-knife, a *tchakmak*,* a steel, a *tchakmak-tashi*, a flint, and a supply of *kav* or *toutrak*, that is of tinder, or punk. The verb "to strike a light" is "*tchakmaghy tchakmak*". And the names of the coal and wood, &c., required for a fire are useful; it is better to carry such words in the mind than to leave them at home like the Dutchman's anchor.

| *English.* | *Turkish.* |
|---|---|
| Wood | Odoun |
| " | Tchira |
| " | Tcheup |
| " | Keuzlu odoun |
| Coal | Keumur |
| Charcoal | Aghadj keumuri |
| Pit-coal | Tash keumuri |
| Ashes | Kul |
| To light | Yakmak |
| To light a candle | Moum yakmak |
| To light a fire | Atesh yakmak |
| Live coal | Kor |

| *English.* | *Turkish.* |
|---|---|
| Kettle | Ebrick |
| " | Thandjèrè |
| " | Kazan |
| Chafing-dish | Manghal |
| " | Korlik |
| Carpet | Khali |
| Bellows | Keuruk |
| Torch | Yel moumi |
| To light a lantern | Fanous yakmak |
| To light a torch | Meshalè yakmak |
| Tongs | Mashè |
| Mat | Hasyr |

About half-a-day's ride from Smyrna on the route to Ephesus stands on a rivulet the hamlet of Trianda, or Terrenda, a place not, perhaps, worth seeing in itself, but still frequently visited by parties from Smyrna, middies, skippers of "fruiters", and others who enjoy the saddle in an open country, have an eye for the beauties of Nature; and for associations' sake desire to see caravans of camels, and flocks and herds wending their way as they did in the time of Jacob and Esau, when Macadam was unthought of, and no country enclosed to any extent.

We would here venture to recommend every skipper visiting Smyrna, and many smart vessels, at the moment of the *Nautical* going to press, are loading for that destination; we would advise every skipper, we say, if he can spare four-and-twenty hours from his ship to ride over to Terrenda† from Smyrna, sleep there, and canter back again in the morning. Not that his eye will be gratified with much "high farming" on the route, but nevertheless, gratified he must be with many things he will observe, be his taste bucolic or geological, or dendrological, or "how otherwise". And if such a trip be made, an acquaintance with some of the following words may not prove useless.

* At eight o'clock on the road to Sulimania we crossed a broad but shallow torrent (which descends from Goodroon, and in Autumn is quite dry,) called *Tchaktchak*, because, as my conductor informed me, the pebbles found in it strike fire. *Rich's Residence in Koordistan*, vol. 1, p. 65. *Tchaktchak* in the *Dict. Turc-Franc.* vol. 1, p. 356, is defined as "*cliquetis des sabres ou bruit d'une hache tombant sur quelque chose.*" So that possibly the mere rustling of the pebbles against one another, as the torrent sweeps by them, may be a sufficient reason for the stream being called *Tchaktchak*.

† Vide *Oriental Outlines*, page 258.

| *English.* | *Turkish.* |
|---|---|
| Fowling-piece | Av-tufengui |
| Holster | Koubour |
| Saddle | Eïer |
| " | Palan |
| Saddle strap | Terki |
| Saddle bag | Hibeh |
| To whip | Kamtchilamak |
| Whip | Kamtchi |
| " | Kyrbatch |
| Stirrup | Rikiab |
| " | Uzengu |
| Spur | Mihmez |
| " | Mahmouz |
| To bridle | Teldjim itmek |
| Nosebag | Mikhlat |
| Bridle | Kantirma |
| " | Ouïan |
| " | Dizguin |
| " | Rakht |
| " | Djilbour |
| " | Guiem |
| Horse cloth | Tchoul |
| Stable | Akhor |
| Stable boy | At-oghlani |
| To mount | Ata binmek |
| To dismount | Atten inmek |
| To shoe a horse | Nallamak |
| Tethers | Keustek |
| Horse-shoe, | Atun-nal |

| *English.* | *Turkish.* |
|---|---|
| Spyglass | Dourbin |
| Boots | Tchizmeh |
| Tops | Galshin |
| Cloak | Yaghmourlik |
| " | Yapondja |
| " | Bournous |
| Game | Av |
| Flock of sheep | Koïoun surisi |
| Flock | Suru |
| " | Suri |
| " | Mandra |
| Traveller | Yoldji |
| Road | Yol |
| Paved road | Kaldyrim yol |
| Cross road | Arkoury yol |
| Private road | Oghryn yol |
| " | Oghry yol |
| " | Katchmak yol |
| High road | Olou yol |
| Frequented road | Ishlek yol |
| The right road | Dhogrou yol |
| The wrong road | Yanlish yol |
| Foot road | Iaïa yol |
| Coach road | Araba yol |
| Travelling compa-nion | Yoldash |
| " | Yol-yoldashi |
| Wolf | Kourd |
| Blacksmith | Nalbend |

The trees, *aghadj*, which the traveller will observe on his route, comprise a vast number, almost unknown except by name in England; that is, the British soil is not favourable to their proper growth. Among these are the

| *English.* | *Turkish.* |
|---|---|
| Plane | Tchinar |
| Cypress | Selv |
| Date | Hourmah |
| Olive | Zeitoun |
| Cedar | Servi-azad |

| *English.* | *Turkish.* |
|---|---|
| Mastic | Sakiz |
| Orange | Narindj |
| Fig | Indjir |
| Almond | Badem |
| Pomegranate | Enar |

We almost fear wearying the reader by these additions to the vocabulary we offer, piecemeal though it be; yet we deem the following words necessary to the object we mentally hold in view.

| *English.* | *Turkish.* |
|---|---|
| Shepherd | Tchoban |
| Shepherd's crook | Tchoban-deinègui |
| " | Usturpa |
| Shepherd's dog | Mandra-keupegui |
| Sheep | Koioun |
| Sheepfold | Koioun-aghy |
| Lamb | Koioundjik |
| " | Kouzy |
| Yearling | Shishek |
| Lambkin | Thokly |
| Sheepskin | Meshin |
| Herdsman's horn | Tchoban borousi |

| *English.* | *Turksh.* |
|---|---|
| He-goat | Erkedj |
| " | Djedi |
| " | Tekè |
| " | Guevsem |
| She-goat | Ketchi |
| Kid | Oghlak |
| " | Oulak |
| Goat-herd | Ketchi-tchobani |
| Chamois, or wild-goat | Dhagh-ketchisi |
| " | Faous |
| Roebuck | Karadja |
| " | Tchoupour |

| *English.* | *Turkish.* | *English.* | *Turkish.* |
|---|---|---|---|
| Jackall | Tchakal | Colt | Koudouk |
| " | Kara-koulak | " | Tedjarè |
| Cow | Inek | Tent | Tchadir |
| Calf | Bouzaghou | " | Otak |
| " | Dana | " | Shemsieh |
| Bull, | Bougha | Caravan | Kairuvan |
| Donkey | Esheck | " | Kafileh |
| Buffalo | Djamous | " | Kairvan |
| Mule | Katrr | " | Ir |
| Young camel | Keushek | Bridge | Keupri |
| Horse | At | Ford | Guetchid-yery |

*Panayia!* as the Greeks exclaim when in a fix, and so do we. The bell has this instant most unexpectedly struck, and denoting as it does the smallest hour of the mid-watch, it warns us that it may here be better to wind up our present communication; which we shall at once do, by simply assuring those who have "braved the battle and the breeze," and thus proved their courage, that despite all tour-writers and lovers of the terrible, there is ever *more fear than danger* in travelling in Turkey. Now and then the country may be a little disturbed, and a few *klephts* of all nations prowl about for plunder, and a traveller be summoned to "stand and deliver;" but this is the exception, not the rule.

Ashore there is never half so much danger as afloat, where piracy most certainly still exists; but ashore notwithstanding the wild and sometimes scowling appearance of tall *Tchinganees*, and *Zebecs*, and swarthy *Yuruks*, and other gentlemen in queerish turbans too numerous to mention, the Frank will find himself as unmolested in Anatolia as on Salisbury Plain, or Blue Bell hill, between Chatham and Maidstone. And if anything go wrong, it may generally be attributed, when properly inquired into, to the traveller's own *brusquerie*, rather than to the people who own the Sultan as their liege Lord and Master. We have sojourned among the Turks, ourselves and we fearlessly assert them to be right-down good fellows; and READER, if you doubt our word, if you assert the contrary, be so good as to consider that you are—under our mortal challenge; select some friend (if you can find one) as obtuse as yourself, and by the shade of MARRYATT, Peter Simple as you are, we'll settle the point by a "triangular duel," that is, if the proposed Battersea Park remain long enough unenclosed to afford us a *locus in quo*.

---

PROCEEDINGS OF H.M.S. PLOVER, *Commander T. E. L. Moore, in Bhering Strait.*

*H.M. Discovery Ship Plover, Choris Peninsula, Kotzebue Sound, Sept. 25th*, 1849.

SIR.—Having had no opportunity of communicating with Great Britain since my last report to my Lords Commissioners of the Admiralty, dated August, 1848, at Woahu (Sandwich Islands), I have the honor to acquaint you, for their Lordships' information, with the general proceedings of her Majesty's ship under my command up to this period.

After filling up water and laying in a stock of fresh provisions, vegetables, &c., I sailed from Woahu (August 25, 1848,) with the north-east trade wind, which I carried pretty steadily till the 3rd of September, at which time I had reached the parallel of 36° north, and 171° west. From this date I continued to hold a course to the south-west, (though much impeded by northerly winds,) in order that in the event of meeting with westerly winds, as I had been led to expect, I might have the passage through the Aleutian Islands under my lee. On the 27th of September I had the satisfaction of knowing by the ship's reckoning that I had passed the latitude of Attu, the westernmost island of this group, though from the prevailing cloudy and foggy weather no indication of my approach to land could be observed, beyond a slight discoloured appearance of the sea, which had been first noticed on the 20th, on which day I commenced to sound, but found no bottom till the 5th of October, in lat. 61° 19′ north, long. 174° 8′ east.

As I had now obtained soundings, and having observed for a day or two past a bright yellow blink, extending from N. to S.E.b.E., I kept the deep sea lead constantly going, which gave on the 8th (October) 170 fathoms, gradually decreasing from that day till the island of St. Lawrence was seen, on the 13th.

From the 23rd of September I experienced a succession of variable and light winds, with frequent squalls of moderate force, chiefly from north-west and north-east, and occasional calms, the weather being almost constantly thick and cloudy, with frequent falls of rain, and subsequent to the 3rd of October, when the temperature had fallen permanently below 40° of Fahrenheit, sleet and snow prevailed.

On the 13th the Island of St. Lawrence was made out, already covered with snow, causing its appearance to be with difficulty reconciled with the delineations on the Admiralty charts, those of Bhering Straits, together with the "Sailing Directions forwarded by Admiral Lutke, through Captain Kellett", unfortunately not having reached me. In the evening, while yet in the passage, the wind again veered to north-east, and continued to blow from that quarter, increasing in force during the night, and, notwithstanding the utmost vigilance of the officers of the watches, found on the 16th I was thirty miles to the southward of my position on the previous day, being several miles to leeward of the South Cape (Asiatic shore), instead of weathering Cape Chaplin, as I expected. Finding the vessel thus totally unqualified to contend against an adverse wind and a strong current setting to the south-west (which had been felt in some considerable degree there several days past), I felt the necessity of seeking shelter under the land, whilst still in my power, rather than remain at sea under such unfavourable circumstances. I accordingly came to at 7h. 20m. A.M. in a bay on the south-west coast of Siberia, open to the south and west, at a distance of four miles from the land; in readiness to take immediate advantage of any favourable circumstance that might occur. Mr. Henry Martin (second master) was despatched to examine an indentation which I observed, having the appearance of a river, who on his return reported the existence of an extensive harbour with safe anchorage, protected from the sea by a long low spit. In the mean time a number of natives came off to the ship, from whom I understood that I could conveniently procure a supply of water near the anchorage reported by Mr. Martin. I stood in on the following day, and anchored at 9h. 45m. P.M. in 20 fathoms water, the wind being still fresh at north-east.

On the 20th, finding the direction and force of the wind to continue, the temperature of the air to fall as low as 23½ Fahrenheit, and the sea-water

to 28½, I deemed it prudent to take the opinion of the officers as to whether an endeavour to proceed to the northward should be made. These opinions I have the honor to enclose, and which I beg to state were strictly in accordance with my own sentiments, viz., that it would be better to remain in this secure harbour for the winter than make a useless attempt to proceed northward, with a probability of being unable to regain my advantageous position (from which I could send out overland expeditions), and on account of the advanced season to lose the chance of wintering even in Petropaulski. I therefore determined that, should no favourable change take place before the 26th, to select a convenient spot in which to place the ship for the winter.

On the 23rd a still further reduction of temperature took place; the upper part of the harbour was reported freezing over, and large masses of ice forming during the night about the ship, in consequence of which, after a personal examination of an inner harbour possessing many advantages, I removed thither on the 24th, anchoring at 3 P.M. in seven fathoms.

The harbour to which I had now removed communicated with the larger one by an opening a mile wide, forming a basin four miles long and one and a half in breadth, surrounded on every side by lofty mountains, except to the southward, where it was separated from the sea by a tract of low land and an extensive lagoon, and having deep water at the entrance and middle, with good anchorage on each side close to the shore. On the low land to the south was a native settlement of seven huts, to which belonged a large herd of reindeer, from which I hoped from time to time to obtain supplies of fresh meat. Considering it, however, safer for the ship on account of the force and prevalence of the north-east winds, as well as the probability of the ice drifting, and on the whole better to be at a little distance from a people whose friendly disposition was not yet established, I removed to the north side of the harbour on the 25th, and there secured the ship for the winter on the 28th of October.

From the 29th the people were employed in dismantling the ship, leaving nothing but the lower rigging over the mast-heads, building a house of stone for the convenience of working the forge, drying clothes, &c., and housing the ship in, all which was completed by the 8th of November.

During this time ice was continually forming round, and frequently broken up by squalls and strong north-east winds, so that the ship was not finally frozen in until the 18th, when the natives were first enabled to visit us along-side the ship in their sledges, drawn by dogs.

It will now be necessary for me to inform their Lordships of the friendly intercourse I succeeded in establishing with the different tribes of natives near my winter quarters. They at first appeared to hesitate about coming on board, but on making a few presents and allowing some traffic to be carried on with them, they gained confidence, at least so far as to enter the ship readily when invited to do so, we being careful on all occasions to guard against treachery on their part, on account of the warlike and relentless character attached to the people of these coasts by some authors.

During the months of November and December the ship was daily visited, not only by those in the vicinity, but also by others from a distance along the coast and inland, by my intercourse with whom I was enabled to satisfy myself that they were not only peaceful, but disposed to be actively friendly towards myself and the officers and men under my command. The first difficulty was to gain some knowledge of the language, to which all the officers applied themselves with surprising success, so much so, that in the early part of the year I was enabled to send them in different directions

with the confident expectation that they would be able to make successful inquiries as to whether any vessels answering to the description of her Majesty's ships *Erebus* and *Terror* had visited any part of the coast, or been seen during the past year by any of the natives.

On these expeditions every officer in the ship (except Mr. Francis Lee, acting second master, ice) took his turn displaying throughout a persevering energy in enduring fatigue and hardship, as well as firmness and discretion in their intercourse with the natives, which I cannot sufficiently commend, which conduct I sincerely trust will meet their lordships' approbation, and tend to their future advancement.

Of these hardships I can confidenly speak from my own experience in travelling on several occasions on a sledge in heavy snowdrifts, with the thermometer at 30° below zero.

The following account of a party which left the ship in February will be read with interest, I think:—

Having understood from the natives that there were to be seen the remains of a vessel near East Cape, but the time of the ship's wreck I could not make out, to gain more certain information of which I sent Mr. Wm. H. Hooper, acting mate; Mr. Henry Martin, second master; and Mr. William H. Moore, master's assistant, with two native guides who were familiar with that part of the coast, and upon whom I could confidently depend, giving them directions to proceed as far as they found the natives friendly, and if practicable to cross the straits and visit Kotzebue Sound; but on no account rashly to trust themselves among tribes with whom their guides were not familiar, or were in any way doubtful of. On the second day of their journey, when about fifty miles from the ship, they were overtaken by a violent snow storm, by which their progress was much impeded, and, from the thickness of the weather, all idea of the direction in which they had travelled became lost, and at nightfall the guides confessed they knew not where they were, and that they must wait for clear weather, which might be expected with the moonlight. On the second day the guides were in some degree re-assured, and again proceeded, but at night found themselves as ignorant of their position as ever, and a third day was passed in the same manner. On the fourth day Mr. Martin, from the fact of their having been for the greater part of the time on the sea-ice, having once only been on the land, which they imperceptibly lost, judging that their wandering had been made in a circle of moderate extent, proposed, from his knowledge of the coast in a previous journey, to attempt reaching the place they had last left by the aid of his pocket compass, to which Mr. Hooper readily agreed, and in the evening, when the weather cleared a little, they had the happiness to find that a merciful Providence had brought them out of their difficulties, when to every appearance they were cut off from all hope. The slight view of the land they obtained recovered their exhausted frames and stimulated them to fresh exertions, by which they gained Ung-wy-sack (Cape Chaplin on the charts) before darkness set in.

It would be impossible for me to describe their sufferings from cold, fatigue, and want of fire with the snow and drift finding its way beneath the folds of their garments, and there gradually thawing, penetrating their under clothes. Under these trying circumstances, to add to their misfortunes, Mr. Moore, on the second night of their exposure, was seized with a violent bowel complaint, which continued until the day they reached the village, at which he arrived literally more dead than alive. He had complained also of cold feet, which were now found not frozen, but completely chilled as high as the knees, which in the course of the night, by the kind attention

of the natives, were restored to their natural temperature; but many weeks elapsed before sensation and the power of voluntary motion were re-established in the right foot and ancle. I received a letter from Mr. Hooper, by the hands of a trusty native, giving a detail of their progress, and expressing a strong desire to be permitted to proceed, leaving Mr. Moore to return to the ship as soon as his strength would permit. This I granted, sending a further supply of provisions, and providing for Mr. Moore's immediate return to the ship. Messrs. Hooper and Martin continued their journey as far as to get a view of East Cape, beyond which they could not go, as the tribes to which their guides belonged were at feud with those further to the northward. I had the pleasure of receiving them on board in good health, after an absence of six weeks, and by their account found that so far as they went the natives were friendly and obliging, from whom they gained the information that some considerable time ago a vessel with one mast, had been seen on the coast, which was understood to have been wrecked on the American side, where her stern frame is still to be seen on the beach.

Whilst these journeys were being performed, the observations on board and the duties of the ship were conducted by Lieutenant William A. R. Lee, and the other officers under my own direct superintendence; and at intervals Mr. Martin, assisted by Mr. Hooper, made a survey of the place in which I had secured the ship for the winter, which connected with Mr. Martin's and my own observations on the coast to the westward, will, I hope give a tolerably correct representation of these shores, and, when associated with magnetic observations on every attainable point, will, I trust, meet their lordships' approbation.

Among the internal arrangements of the ship those for the instruction and recreation of the crew, according to the example set by Captain Sir William Parry, were not omitted; and I gladly availed myself of the proffered services of Mr. J. Simpson, assistant-surgeon, and Mr. John J. Lindsay, clerk in charge, in conducting a school for reading and writing, and getting up plays and masquerades, for their amusement and pastime in the long dreary nights of winter.

Soon after my arrival in Emma's Harbour (the name which I have given to the place in which I wintered), I was fortunate enough to procure a supply of reindeer's flesh from the natives, and saw large herds of these animals near the village, where I hoped to procure further supplies, and in this I was not ultimately disappointed, though the unwillingness of these people to barter large quantities at a time, and the distance to which they were obliged to drive the flocks in search of pasturage whilst the land appeared entirely covered with snow, considerably reduced the quantities that might have been under other circumstances obtained. Towards the month of March I therefore readily acceded to the wish of a chief who had come from a great distance with the carcases of twelve reindeer, in return for a ship's musket, which I did not doubt their lordships' would approve of, considering the advantage arising to the ship's company by a change of diet.

In the beginning of April, finding that the sea edge of the ice began to break away, I set about fitting the ship for sea which was completed in the fine weather of that month, and on the 22nd of May, when the floes had been broken as far as the fetch of the sea would reach, I deemed it necessary to commence cutting the ship out of the remaining portion, which appeared fixed by two opposite points of land a mile and a quarter astern of the ship. The ice was found from five to six feet thick, and cutting out seemed a formidable operation for so small a crew, but the officers and men

set to work with such alacrity, and carried on with such perseverance, that notwithstanding interruptions, occasioned by snow storms, the work of cutting a canal of 2,000 yards in length, was completed in twenty-two days; and on the 13th of June I had the pleasure of seeing the *Plover* released from her icy cradle, and at anchor in the clear water of the harbour.

The ship being thus free, and thoroughly refitted, as far as my means would permit, and filled up with water of excellent quality, my departure was delayed by baffling winds and calms, but on the 15th gained the outer anchorage by towing and taking advantage of the ebb tides. Here again I was mortified to find the prevailing winds westerly and south west, and driving a heavy and close pack of ice in on the coast and outlet of the anchorage, which was rendered the more annoying by receiving frequent reports from the natives of two ships being off Cape Chaplin, on board of which they had not been allowed. Although I considered it too early in the season to expect her Majesty's ship, *Herald*, I felt the necessity of assuring myself as to what nation they might belong, and for this purpose, as soon as I discovered there was room for a boat to make her way between the coast and the pack, I sent Mr. Henry Martin, second master, in the gig, to gain information regarding them, by whose account I ascertained that one ship, which he boarded at anchor, about 20 miles to the northward of us, was the Tiger, American whaler, Brewster master, from China. Mr. Martin also reported that the vessel had been detained by streams of ice in the straits northwards, but so far as he could observe the sea was clear between the Island of St. Lawrence and the main, that the other vessel seen was the Tiger's consort, also a whaler, and that a heavy pack was set close in shore, to the distance of 10 or 12 miles east of my present anchorage, between which and the beach he frequently found insufficient room for the boat's oars to pull in clear water.

After several attempts to get the ship to sea, and having personally examined the extent of the pack from the top of a neighbouring promontory, I was at length successful, with a breeze at north-east, which drove the ice to the distance of a mile off shore, in rounding the south-east cape, and anchored alongside the Tiger, on the south side of Cape Chaplin, on the 1st of July. To guard against delay in meeting the *Herald*, I took the precaution to purchase from the master of the Tiger some bread, and a small quantity of salt meat, which were of superior quality to ours, and almost European prices.

The wind continued at north-east, varying from a light to a reefed topsail breeze, but by working in shore on the west side, and anchoring occasionally, I was enabled to get as far as the Bay of St. Lawrence, but found the vessel totally incapable of weathering East Cape whilst the wind continued adverse. At this place I was detained several days, but had the good fortune to obtain a supply of reindeer's flesh, and on the 11th of June I sailed, favoured by a W.S.W. breeze, which carried me to Chamisso Island, Kotzebue Sound, where I anchored on the 13th. Here I first got intelligence of the *Herald* having visited the Straits (September, 1848), and immediately set about preparing the boats to start the first favourable opportunity.

On the following morning I despatched two boats (pinnace and gig), Lieutenant William A. R. Lee in the one, and Mr. William H. Hooper, acting mate, in the other, victualled for seventy days, with instructions to Lieutenant Lee to make the best of his way to the Mackenzie River; but they had not got out of signal distance when her Majesty's ship *Herald* hove in sight, and they were recalled. On the 15th Lieutenant Pullen joined, and Lieutenant Lee was discharged for passage to join the *Asia*. After receiving as

much provisions as I could conveniently stow, it was determined by Captain Kellett and myself to proceed to Wainwright Inlet, from whence the boats should be again despatched, examining the coast as the ships passed up, for the purpose of finding some secure winter quarter for the *Plover*, which was accordingly done, and on the 17th left Kotzebue Sound, and on the afternoon of the same day were joined by Robert Shedden, Esq., in his schooner yacht the *Nancy Dawson*. Not finding any spot in which to place this ship to the southward, we arrived off Wainwright Inlet on the 25th, and after examining it, and being satisfied she could not be got in, the decked boats of the ships, with two whalers, were sent away under the command of Lieutenant Pullen, accompanied by Mr. William H. Hooper, acting mate, and Mr. Henry Martin, second master. (A copy of my instructions to Lieutenant Pullen, I have the honor to enclose.) The two ships, with the *Nancy Dawson*, weighed, and proceeded in company with the boats, and it was my intention to have gone as far as Point Barrow, had not the wind hauled round north-east, when we lost sight of the boats (26th). We then stood on to the northward and westward till the following day, when we fell in with the pack, and on the 27th observed an appearance of land, extending from N.W.b.N. to N., and the drift ice to be covered in many parts with mud and shells. Having now reached the latitude 72° 51′ north, and long. 164° 28′ 30″ west, with a pack stretching from N.W. to N.N.E., without an opening to the northward, and feeling satisfied we could not penetrate further north to join the boats without hampering both vessels, we determined to return to Wainwright Inlet, re-examine it, and try, if possible, to place the *Plover* there for the winter, off which place we arrived on the 31st of July.

On the morning of the 1st of August I again visited the inlet, and, much to my disappointment, found I should have to lighten the *Plover* too much; and it was fortunate the attempt was not made, for in the evening both ships were obliged to weigh and stand off the land, the wind coming up strong from the south-west, and continued to blow from that quarter for several days, during which time I experienced the utmost anxiety, from the fact that the ship would do nothing. The current setting to the north-east, and the wind hard from the south-west, for some considerable time I saw no hope for her but the beach. I beg to call their lordships' particular attention to my position, as noted on the track chart for the time referred to. On the 11th I arrived off Cape Lisburne, where it was appointed the two ships should meet; but not finding her here, proceeded on my way to Chamisso Island, as I did not feel myself, justified in keeping this vessel on the coast during the prevalence of the heavy south-west winds. On the following day, Aug. 12th, the wind increased to a gale from the westward, and it was only by carrying a press of canvass that I was enabled to weather Point Hope, and then, with the loss of my port bower anchor and a length of chain, which I was obliged to slip; the stopper and gear, although new, being carried away by a heavy sea, which struck her on the bow.

On the afternoon of the 16th I arrived off Chamisso Island, and I immediately commenced to search for a nook in which to put the ship, but regret to say I found none which I considered safe for the winter; but determined to place her under the south side of Choris Peninsula, as being the only spot, in my opinion, where she could lay, which was accordingly done.

I now took advantage of the opportunity to send a party to Escholtz Bay, and succeeded in getting some fossil teeth, horns, &c., but not as many, or so large, as I should have liked to have presented to their lordships. If no opportunity offers to enable me to send them, it is my intention to keep

them on board till my arrival in England. I also took up the flour and beads buried by Captain Beechey; the flour is in an excellent state of preservation —so much so as to be eatable. I beg to forward a small keg for their lordships' inspection. The thermometer buried on Puffin Island we were, unfortunately, unable to find, having no directions as to the spot where it lies.

I also formed a party and went up the Buckland River, to the distance of about 70 miles, where we were unfortunately stopped by a strong rapid of about a quarter of a mile long. From the short time I was able to spare on my visit I could do no more than establish a most friendly feeling amongst the natives; so much so, that some of them have brought their families down to Kotzebue Sound, to be near us during the winter.

On the 28th of August, the schooner yacht *Naney Dawson*, with her owner, Robert Shedden, Esq., arrived with Mr. Martin, second master, and one of the deck boats. Here I beg to say that I cannot sufficiently thank Mr. Shedden, for his kindness and attention on all occasions to the boats of the expedition. Mr. Martin reports having left Lieutenant Pullen and Mr. Hooper, with the two whalers, about 50 miles to the eastward of Point Barrow, and that they had every prospect and hope to be at the Mackenzie in a few days: I am therefore daily and anxiously awaiting their return. Mr. Martin also reports that the water is exceedingly shallow off and about Elson Bay, and that although the summer has been a most favourable one in every respect for a vessel coming through, yet the depth of water necessary is wanting. This, together with the north-east current, and the prevalence of south-west winds, renders the north-west passage, in my opinion, decidedly unattainable.

Although every opportunity has been taken advantage of to gain information from the natives as to Sir John Franklin and his party, I regret to say that our labours have been as yet unsuccessful; but I trust long 'ere this reaches England both he and his expedition will have arrived.

I beg to inform their lordships that as soon as the ice breaks up to admit of my proceeding to the northward, I shall do so, making my way back in sufficient time to be at Chamisso when the *Herald* arrives.

I beg also to inform their lordships, that I am provided in every respect with provisions, slops, &c., for my whole complement, up to the end of July, 1850.

I have now, in conclusion, to express to their lordships, how much I feel satisfied with the conduct and unwearied exertions of the officers and men under my command; and I most earnestly beg to call the attention of their lordships more particularly to the three following officers—Mr. Henry Martin, second master; Mr. W. H. Hooper, acting mate; and Mr. John J. Lindsay, clerk in charge; and trust their lordships will grant them the promotion they so much deserve.

I have the honour to be, Sir,
Your most obedient servant,
THOMAS E. L. MOORE, *Commander.*

*To the Secretary of the Admiralty, &c.*

---

*Her Majesty's Brig Plover, Choris Peninsula,*
*Kotzebue Sound, Sept. 27th,* 1849.

SIR.—The time having arrived for the departure of her Majesty's ship *Herald* for the southward, I beg leave to take advantage of this opportunity to call to the notice of the Lords Commissioners of the Admiralty the services of

the several officers undermentioned, viz., Messrs. Martin, Hooper, and Lindsay; and at the same time to convey my opinion of the value I attach to their services during the last season.

The advantage derived from the exertions of Messrs. Hooper and Martin, in performing the various overland expeditions during the inclemency of such a season, I feel sure their lordships will appreciate, as well as the equally praiseworthy exertions of the third officer named above (Mr. John J. Lindsay, clerk in charge), in acquiring a knowledge of the language as far as was practicable, which greatly facilitated the communication of our different expeditions with the natives of the country, and by which means much useful information was obtained.

For the reasons I have above stated, I feel confident in placing these officers' conduct before you for their lordships' information, that they may receive the advancement to which I am sure their lordships' will admit they are entitled.

I have the honour to be, Sir,
Your most obedient servant,
T. E. L. Moore, *Commander.*

*To Capt. Henry Kellett, C.B., Her Majesty's ship Herald.*

---

### Another North-West Expedition.

Three expeditions are preparing to proceed this year in search of Sir John Franklin, by way of Lancaster Sound. Briefly we may enumerate them in the following order:—

1. That of Captain Austin, C.B. The gallant captain having accepted the offer of the Admiralty with characteristic alacrity and devotion. Four ships have been selected for his expedition, namely two sailing vessels of about 400 tons, and two screw steamers, each of 60-horse power, of about 350 tons. Mr. Watts, Assistant-Surveyor of the Navy, has surveyed one at Newcastle, and the other has been surveyed in the Thames. They are both new vessels, and are purchased at £13 per ton. One of the steamers is named the *Eider*, now at Southampton, and the other is the *Free Trader*, daily expected home from the Mediterranean. They were built by Mr. Green, of Blackwall, and have Maudslay's engines, and the two steamers will be appropriated as tenders; and will most likely be commanded by Lieutenants. In addition to Captain Austin, only one Officer has yet been appointed,—Lieut. Osborn, who has proceeded to Southampton to navigate the *Eider* to the river. It is understood, however, that Lieutenants Mc'Clintock and Browne (late of the *Enterprize*) will be appointed; Captain Austin, who has the entire arrangement of the Expedition in Officers and ships, having accepted their nomination. Mr. Bradley, Surgeon of the *Blenheim*, will accompany Capt. Austin. The sailing ships will be fitted by Green and Wigram, and the steamers will be fitted at Woolwich. Mr. Rice, Assistant Master Shipwright of Portsmouth Dockyard, who so ably fitted Sir James Ross's ships, is again entrusted with the superintendence of fitting these ships, and Messrs. Gormully and Blessly, foremen, are appointed to assist him. It is not expected that the expedition will start before the month of June, the period determined upon by Captain Austin himself.

2. That under Mr. Penny, late Captain of the *Advice*, whaler, promoted

personally by Lady Franklin. It will consist of a 300-ton ship, purchased at Aberdeen, and named the Lady Franklin; and Mr. Penny will also have under his orders a smaller vessel, as a tender. Dr. McCormick, R.N., who was in one of Parry's expeditions, and served in the last Antartic voyage, it is said, will accompany Mr. Penny, and, with a party of five men, will be landed, and search the coast of Wellington Channel.

3. An expedition started by Sir John Ross, proposed to be got up by public subscription, and to which Sir John Pelly, Bart., the Deputy-Master of the Trinity Corporation, has subscribed £500.—*United Service Gazette.*

---

THE MERCHANT SERVICE.—The Goverment have before the House of Commons three bills for improving the condition of masters, mates, and seamen in the merchant service, the regulation of the merchant seamen's fund, and the admeasurement of the tonnage of merchant vessels. The details of those measures we shall give hereafter. Their principal features are:—First, the appointment of a Board of Examiners, under the Board of Trade, who are to grant certificates to candidates for the command of merchant vessels upon proof of their possessing the proper qualifications. No captain who has not previously served to receive an appointment unless he has obtained such a certificate. Secondly, to arm captains and mates with greater powers to enforce discipline among their crews. Thirdly, to supersede the existing shipping agents and crimps by the establishment of offices in the ports under the supervision of government, where, for moderate fees, the contracts may be prepared for the seaman when he ships for the voyage and his pay handed to him on his return. Fourthly, to improve the present system of registration of seamen, and to prevent the frauds practised on sailors upon their advance notes by making those documents legally recoverable; and, Fifthtly, to provide that marine courts, under the presidency of some naval officer, may be constituted in distinct ports, and armed with very summary powers for the settlement of all grave questions between merchant seamen and their commanders. Mr. Labouchere concluded by deprecating the objection that this bill would endow the government with any excessive powers over private interests.—*Daily News.*

---

## NAUTICAL NOTICES.

### VEGAS SHOAL.

*Liverpool, Feb. 7th*, 1850.

SIR.—So many of your correspondents have commenced their communications by justly praising your Magazine, that I think it would be superfluous in me following in their steps.

My remarks are on the Vegas Shoal which I was unfortunate enough to get on, on my passage home this last voyage. This shoal is laid down in about 1° 7′ S., long. 106° 34′ E. On October 18th, 1849, at noon, calm with rainy weather, the latitude by reduction to the meridian 1° 8′ S., longitude per chronometer 106° 48′ E. Supposing myself fourteen miles to the eastward of the Vegas Shoal, sounding from 20 to 22 fathoms, no perceptible current by the lead; 4h. P.M. still calm, soundings 22 fathoms. Knowing the current sets to the south-eastward at this season, (I have experienced as much as thirty-two miles in the twenty-four hours), I was not uneasy about the shoal. Notwithstanding there had been a look-out at the mast-head all day who reported no signs of shoal water at sundown, I of course looked round

myself, but could not see anything although we must have been very close to it: soundings at 6h. P.M. same as before; 6h. 30m. P.M. a light air from the northward, ship's head, to the southward: 6h. 45m. the ship struck. Having very little wind at the time sounded immediately in the waist both sides, ahead and astern; found 5 and 6 fathoms on the starboard side and forward, and 3 fathoms on the port side, put the helm aport. A little breeze springing up enabled us to bring her head to the westward; steered W.S.W. and S W. for one hour, deepened the water quickly to 18 fathoms, falling calm again came to anchor. At daylight in the morning I took the boat with a compass lead, &c., and examined this shoal, it then bore E.N.E. one mile from the ship (at anchor). I have no doubt it is the Vegas but laid down 10 miles too far west; I had afternoon sights for the chronometers agreeing with the morning, and corrected the chronometers two days afterwards, which were four miles to the eastward by Gaspar Island, Tree Island and the adjacent Banca shore, also in Gaspar Strait, the error I have allowed for. May not the discoverer have given the position of this shoal by the run from Gaspar Island, and not allowed for the strong easterly current, as I see it was discovered in September. At all events there is a shoal in lat. 1° 09′ S., long. 106° 44′ E. It extends N.E. and S.W. about half a mile, large rocks within thirteen feet and 2½ fathoms of the surface, with 3 and 4 fathoms between them; soundings about the shoal the same as described in the account of the Vegas Shoal. I should have measured the shoal, but a heavy squall rising to the westward, made me anxious to get on board again. The boat was right over the shoal before we found it in the morning, although when directly over the shoal, the water being so clear you could see the rocks and the sand between them, as plain as if you were walking on them. It is a very dangerous shoal. Trusting this may be substantiated by some better authority ere long.

I am, &c.,

W. H. HAWKINS.

On Saturday morning October 13th, only five days prior to my getting on this shoal, I passed between Pulo Jarrang and the White Rock, (Pambelan Islands), and took observations for my chronometers when just clear of Pulo Jarrang, which I send you thinking it may be more satisfactory: Mean of times by chronometer 1h. 12m. 48s., mean of altitudes 38° 30′, at the same time the southern extreme of Pulo Jarrang bore W. by S., north eastern extreme of the Great Tambelan N. by E., and the White Rock E. by S. I think you will find those sights will make the chronometer time eleven seconds slow of Greenwich mean time, the error of chronometer September 18th, was 0m. 27s. fast, losing one second per day, therefore it was thirteen seconds out at the Tambelans in twenty-five days. The only reason I have for being so prolix, is to let you see it is not from any neglect this occurred, also that my statement is correct as regards the position of this shoal to the best of my knowledge.

W. H. H.

---

*U. S. Ship, John Adams, Rio Janeirio, Sept. 5th*, 1849.

MY DEAR SIR.—The bank which we sounded, on our passage from the United States, I have laid down on the Admiralty chart of the Southern Ocean, (from 19° to 36° S., 26° to 56° West long.) and have assigned it the following position:—North-east point of bank 20° 28′ S., long. 37° 25′ W. South-west edge 20° 56′ S., long. 37° 56′ W. I ran forty-three miles on a south-west course nearly on it, taking soundings from time to time. The water thermometer induced me to try for soundings. The following is extracted from the log.

| Date. | P.M. | K. | Course. | Wind | Weather Air. | Water | Remarks. |
|---|---|---|---|---|---|---|---|
| | | | | | ° | ° | |
| Aug. 18th | | | | | | | |
| " " | 9 | 5 | S.W½W. | S.S.E. | 4 bc | 67 | 70 | For 20 preceding hours it had been at 72 & upwards |
| " " | 10 | 5 | " | " | " | 67 | 70 | |
| " " | 11 | 3 | " | " | " | 66 | 70 | |
| " " | 12 | 3 | " | " | " | 66 | 70 | |
| | A.M. | | | | | | |
| " 19th | 1 | 5 | S.W. | Varble | 3 bc | 66 | 70 | |
| " " | 2 | 5 | " | " | " | 66 | 70 | |
| " " | 3 | 3 | S.W½W. | " | " | 66 | 70 | |
| " " | 4 | 4 | S.W. | S.E. | " | 65 | 70 | |
| " " | 5 | 5.2 | " | " | " | 66 | 70 | |
| " " | 6 | 1 | W. | " | " | 65 | 70 | |
| " " | 7 | 3 | S.W. | " | " | 66 | 70 | |
| " " | 8 | 5 | S.W½S. | " | " | 66 | 72 | |

"At 10h. 20m. sounded in 45 fathoms water, bottom soft rock. At 11h. 25m. sounded in 36 fathoms, gravel and rocky bottom. At 12h. sounded in 37 fathoms water, bottom coral rocks.

From midnight to 4h. sounded in 37 fathoms every hour, the bottom uniform, coral rock. From 4h. to 8h. pleasant; at 5h. got soundings in 46 fathoms water, coral rock; at 6h. got soundings in 64 fathoms water, coral rock; at 7h. with 140 fathoms of line got no soundings; at 8h. with 150 fathoms of line got no soundings."

On my arrival I carried back the slight error of the chronometer.

The latitude by observation, at noon of 18th 20° 14′ S.,

Longitude by T.K. 36 32 W.

Chronometer five miles west of the truth.

This may perhaps prove interesting to the chief of your Hydrographic Office, to which the maritime world is so much indebted. If so it will have afforded me satisfaction to have contributed my mite of information.

Wishing you a very pleasant passage to England.

I am, &c.,

L. M. Powell, *Commander.*

*To Capt. Leslie, R.N., H.M.S. Penguin.*

---

Maury's Pilot, and Wind and Current Charts of the Atlantic Ocean.—Whether it be from the abundance of literary productions of the day, or from our intercourse with the Chinese, symbol writing is beginning to establish itself among us. And why should it not? it has the charm of novelty to say the least of it, so attractive to some persons; but it has more than that: it has the recommendation of utility, by compressing into a very limited space a great amount of information. Mr. Raper has shewn us this in his excellent Tables of Maritime Positions. But it will have besides another very important effect, viz, that of inducing well digested ideas, and their expression freed from that redundance of language so common, conveyed in the most simple and the least to be mistaken form. It is also specially applicable to charts; for what are they but representations or symbols of land and sea, and their concomitants. It is not long since we noticed Lieut. Maury's chart of the trades, and we have now before us his Pilot Chart, and Wind and Current Chart of the Atlantic Ocean.

The intention of the pilot chart, is to inform the navigator of the probable direction of the wind in any part of the Atlantic, and is the result of a reference to multitudes of ships' logs, expressed in the space of two sheets. The latter, of which four sheets are published, is intended to express the strength of the wind as well as its direction in the different parts of the Atlantic Ocean; and colour is employed to distinguish the information applying to the different seasons of

the year. This is also obtained from journals of ships, being in fact information supplementary to the former. Currents and their direction are also intended to be shewn by arrows. We shall not pretend to go into any detail as to how the symbolic information in these two charts is to be read; that is a lesson which will be best learnt from them, by him who has to use them; and for which ample instructions are contained on each sheet, developing the scheme on which Lieut. Maury has proceeded. And although we do not expect that seamen will readily fall into their use, still we consider this essay of Lieut. Maury an important step in the right direction, and one with which a familiarity once gained will improve with practice. The hurricane theory has forced itself on the attention of seamen. The best method of making quick passages under sail, by obtaining a knowledge of prevailing winds, and currents, will at no distant period do so likewise.

## Wrecks of British Shipping.

| Vessels' Names, | | Belong to. | Masters. | From. | To. | Where Wrecked. | When, | |
|---|---|---|---|---|---|---|---|---|
| Agenoria | 70 | ——— | Patterson | Scotland | Halifax | Nova Scotia | Dec. 7, | |
| Agnes & Ann | | Alloa | ——— | Quebec | Glasgow | Anticosti | Nov. 1, | cs |
| Anne | | Stockton | Venus | Stockton | Hamburg | Oesel | Nov. 12. | |
| Argo | | ——— | ——— | ——— | ——— | Copinshay | Dec. 13, | cd |
| Britannia | | Whitby | Hinds | ——— | ——— | Peak | Dec. 19, | cs |
| British Oak | 75 | ——— | Pearson | New York | Liverpool | Holy Head | Nov. 11, | cs |
| Cadmus | | London | ——— | London | Sunderland | Warksworth | Dec. 8, | cs |
| Camerons | | London | Finch | Laguna | ——— | Arcas R. | Nov. | |
| Charles | | Newport | Howe | Cardiff | Wilmington | At Sea | Dec. 10. | cs |
| Chebar | | ——— | Grayson | London | Bombay | run foul of | Dec. 14, | ld |
| Clio | 80 | Aberdeen | M'Gungall | Cromarty | Aberdeen | Off Rosehrtz | Dec. 19, | cd |
| Commeree | | Belfast | McLean | Liverpool | Stettin | Skaw | Oct. 25, | cs |
| Diana | | Maryport | ——— | Maryport | Lough Foyle | C. Ireland | Dec. 7, | cs |
| Dolphin | | Whitby | Long | Dantzic | Leith | Bornholm | Dec. 25, | cs |
| Dorothy | | ——— | Finkle | Shields | London | North Sea | Dec. 28. | |
| Earl Lisburne | 85 | ——— | ——— | ——— | ——— | Kish B. | Dec. | |
| Emerald | | Belfast | Stewardsn | Rigo | Belfast | Scaw | Dec. 5. | cs |
| Emily | | Newcastle | Anderson | Calcutta | Mauritius | Andaman I. | Sept. 1, | 6d |
| Garland | | Lynn | ——— | Belfast | Venice | By fire | Dec. 19. | |
| Gazelle | | Liverpool | Miller | Demerara | Workington | Blackwatr B | Dec, 5, | cs |
| George Hood | 90 | ——— | ——— | Pugwash | St. John | Cariboo I. | Dec. 7. | |
| Granger | | Sunderland | Turner | Shields | London | North Sea | Dec. 28. | |
| Greyhound | | Yarmouth | Foreman | ——— | ——— | OffEartholm | Nov. 17, | cd |
| Harmony | | S. Shields | Stonehous | S. Shields | London | E. Barrows | Dec. 20, | cs |
| Jane | | N. Shields | Lodge | ——— | Constantiple | Off Dunkirk | Dec 29, | cs |
| John | 95 | ——— | ——— | ——— | ——— | Shoreham | Dec. 7. | |
| Lady Sale | | ——— | ——— | Liverpool | Madras | Calingapatm | Nov. 15, | cs |
| Mary Anne | | Goole | Goodwer'h | Selby | Dieppe | Burnham F. | Dec. 3, | cs |
| Mount Etna | | Sunderland | Bull | Quebec | Sunderland | Swona | Dec. 2, | cs |
| Navarin | | Whitby | Boys | Seaham | London | Brake Sand | Dec. 30, | cs |
| Nereid | 100 | Sunderland | ——— | ——— | ——— | Montrose | Dec. 6. | |
| Oak | | Liverpool | ——— | Adelaide | Swansea | abandoned | Nov. 4. | |
| Palmerston | | ——— | Bray | Wyburg | Hull | Urangsholm | Nov 26. | |
| Phœbe | | S. Shields | Moore | S. Shields | London | Bridlington | Dec. 31, | cs |
| Providence | | Ipswich | Beaumont | ——— | ——— | run foul of | Dec, | cs |
| Ribston | 105 | Scarboro | Salmon | Stockton | Ipswich | Off Scarbro | Dec. 2. | cs |
| Rienzi | | Liverpool | Knowles | Liverpool | Valparaiso | At Sea | Dec. | cs |
| Rio Grande | | ——— | Love | Pugwash | Liverpool | Pictou | Dec. 2, | |
| Rival | | Sunderland | crew saved | by Countess | Lonsdale | SchaerhomS | Nov. 8, | cs |
| Sailor Prince | | Belfast | McKeetng | Liverpool | New Orleans | I. Calman | Nov. 12 | |
| Satisfaction | 110 | Stockton | Sopwith | Bremen | New York | not heard of | Aug. 6 | |
| Shambrook | | Bridgewater | ——— | ——— | Bridport | Off Nash Pt. | Dec. 12, | cs |
| Souter Johnny | | ——— | Morgan | Liverpool | ——— | Busby B. | Dec, | cs |
| Titania | | ——— | Smith | Corfu | Zanto | Paxo | Nov, | cs |
| Union | | Dartmouth | Pinwell | Shields | Topsham | Souter P. | Jan. 8, | cs |
| Unity | 115 | Stromness | ——— | Liverpool | Newcastle | Swinton B, | Dec, 7, | cs |
| Venus | | Guernsey | Blackler | Guernsey | Newport | Manacles | Dec, 16, | cs |
| William & Nancy | | Whitby | Farndale | ——— | ——— | ——— | Dec, 3, | cs |
| William & Ann | | Harwich | ——— | ——— | ——— | Brake Sand | Dec, 30, | cs |

## Examination of Masters and Mates.

A List of the Masters and Mates in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 31st December last.

### Masters.

Those having an Asterisk (*) prefixed to their Names served last as Mates.

| Names of Party who has received the Certificate. | Class of Certificate | Date of Birth. | Present or last previous service. | No. of Register ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| A. Wishart | 2nd | 1822 | Prince Albert, 476 tn* | 45736 | London | Dec. 3rd |
| G. Skidmore | 3rd | 1814 | Princess, 132 tons..... | ..... | " | — 3rd |
| G. Absolon | 1st | 1827 | Isis, 155 tons* ..... | 466607 | Yarmouth | — 5th |
| R. Adam | 2nd | 1806 | Eclipse, 650 tons ..... | ..... | London | — 6th |
| J. Neilson | 2nd | 1827 | Ruckers, 396 tons* ... | 35942 | " | — 6th |
| G. Blenkinsop | 2nd | 1813 | Naiad, 209 tons* ..... | 13103 | " | — 6th |
| T. Holman | 2nd | 1817 | Earl Durham, 383 tn* | 29976 | " | — 6th |
| A. McAusland | 2nd | 1816 | Marshall Bennett, 253 | ..... | " | — 6th |
| J. G. Hill | 2nd | 1820 | Aurora, 536 tons*..... | 12358 | " | — 6th |
| J. Webb | 2nd | 1817 | Cleopatra, 368 tons*... | 135141 | " | — 6th |
| C. Kelly | 1st | 1820 | Jessie,..... | 85095 | Glasgow | — 6th |
| G. Young | 1st | 1819 | Helena, 292 tons ..... | 95487 | Dundee | — 7th |
| T. Meiklejohn | 2nd | 1828 | Pursuit, 731 tons ..... | 172338 | Leith | — 8th |
| J. W. Peake | 2nd | 1820 | Apollo, 289 tons ..... | 27186 | London | — 10th |
| T. S. Sergeant | 2nd | 1808 | Mechanic, 401 tons ... | ..... | " | — 10th |
| G. L. Alexander | 3rd | 1824 | Astley, 221 tons* ..... | 63829 | S. Shields | — 11th |
| H. W. Brodrick | 2nd | 1817 | Lord Mulgrave, 417 tn | ..... | Hull | — 12th |
| J. B. Gleadow | 2nd | 1826 | Elphinstone, 420 tons* | 48791 | " | — 12th |
| P. Killea | 1st | 1820 | Elizabeth Brown, 419 | ..... | Glasgow | — 13th |
| J. Finer | 2nd | 1823 | Sultan, 447 tons* ..... | 29394 | London | — 13th |
| H. Morwick | 2nd | 1822 | Prince of Wales, 256 | 324995 | " | — 13th |
| F. Halpin | 2nd | 1819 | Dido, 250 tons* ..... | 394480 | " | — 13th |
| H. Graham | 3rd | 1821 | Huntcliffe, 281 tons* | 92738 | S. Shields | — 13th |
| E. Noaks | 2nd | 1795 | Malabar, 800 tons..... | ..... | London | — 14th |
| J. R. Brown | 1st | 1814 | Salacia, 844 tons ..... | ..... | Liverpool | — 14th |
| J. Rowlands | 2nd | 1812 | Eliza Caroline, 831 tn* | 84956 | " | — 15th |
| A. Miller | 1st | 1822 | Mischief, 252 tons..... | ..... | Glasgow | — 15th |
| J. Middleton | 2nd | 1810 | Eliza, 680 tons*..... | ..... | London | — 17th |
| R. J. Nell | 2nd | 1816 | Emily, 337 tons ..... | ..... | Hull | — 17th |
| W. C. Hylton | 2nd | 1824 | Thetis, 466 tons* ..... | 20817 | London | — 18th |
| W. Ashton | 3rd | 1811 | Elizabeth, 280*..... | 415222 | S. Shields | — 18th |
| J. M'Kerlie | 1st | 1817 | Stag, 678 tons ..... | 32812 | Leith | — 19th |
| T. Scotland | 2nd | 1819 | Sultana, 170 tons*..... | 417532 | " | — 19th |
| D. Bell | 2nd | 1810 | Thames, 371 tons ... | ..... | " | — 19th |
| J. Bradley | 2nd | 1817 | Marion, 358 tons ..... | 25267 | London | — 20th |
| C. Greenwood | 3rd | 1824 | Australia, 935 tons* | 20169 | " | — 20th |
| J. Richards | 3rd | 1825 | Calypso, 306 tons* ... | 6431 | " | — 20th |
| R. C. Hall | 2nd | 1817 | Sea Queen, 414 tons... | ..... | " | — 20th |
| G. T. Hopkins | 1st | 1827 | Persian, 347 tons*..... | 4622 | S. Shields | — 20th |
| J. C. Hawkins | 2nd | 1827 | Nithsdale, 295 tons*... | 163103 | Hull | — 20th |

| | | | | | | |
|---|---|---|---|---|---|---|
| R. J. Allen | 2nd | 1822 | Nithsdale, 295 tons*... | 85867 | Hull | Dec.20th |
| J. P. Clark | 2nd | 1823 | Ulverstone, 354 tons... | 125398 | " | — 20th |
| J. Mackintosh | 2nd | 1819 | Rio Packet, 205 tons* | 186742 | London | — 21st |
| O. Evans | 1st | 1811 | Eliza Caroline, 831 tns | ..... | Liverpool | — 21st |
| T. Emment | 2nd | 1819 | William Carey, 658 tn | 29273 | " | — 21st |
| R. Sedgwick | 2nd | 1818 | Nelson, 200 tons ..... | ..... | London | — 24th |
| C. B. Hart | 2nd | 1325 | Morley, 576 tons*..... | 24791 | " | — 24th |
| A. Bramwell | 1st | 1824 | Harlequin, 199 tons* | 329200 | Glasgow | — 25th |
| W. Atchison | 2nd | 1804 | Cadet, 347 tons..... | ..... | " | — 25th |
| R. Brown | 2nd | 1822 | Abigail, 632 tons*..... | 187120 | " | — 25th |
| J. Cockburn | 1st | 1818 | Sarah Ann, 377 tons... | 189893 | Newcastle | — 26th |
| G. Shield | 2nd | 1828 | Shield, 176 tons ..... | 175093 | Dundee | — 27th |
| J. Farrow | 2nd | 1822 | Jessie, 301 tons* ..... | 50818 | Newcastle | — 28th |
| E. Bell | 1st | 1816 | Eliza Caroline, 831 tns | ..... | Liverpool | — 28th |
| W. Martin | 1st | 1819 | Abigail, 623 tons ..... | 257874 | " | — 28th |
| W. Spence | 1st | 1821 | Vesta, 195 tons..... | ..... | Dundee | — 28th |
| R. Waite | 2nd | 1811 | Mary Rowe, 278 tons ..... | ..... | London | — 31st |
| R. Pollock | 2nd | 1802 | Northumberland, 900 t | ..... | " | — 31st |
| G. Jury | 2nd | 1821 | Thomas Henry, 362 t. | ..... | " | — 31st |
| J. P. May | 2nd | 1806 | Crosby, 110 tons ..... | ..... | " | — 31st |

MATES.

| | | | | | | |
|---|---|---|---|---|---|---|
| E. Thompson | 2nd | 1830 | Earl of Hardwicke 100 | 33133 | London | Dec. 6th |
| M. B. Brown | 2nd | 1828 | Dædalus, 225 tons..... | 310452 | Leith | — 8th |
| J. Forsyth | 2nd | 1820 | Angelina, 434 tons ... | 178668 | " | — 8th |
| J. Spicer | 2nd | 1825 | Charles, 334 tons ..... | 27324 | London | — 10th |
| H. B. Dalziel | 2nd | 1829 | Zenobia, 581 tons ..... | 344260 | " | — 13th |
| A. Boase | 2nd | 1829 | Malabar, 646 tons..... | 28800 | Dundee | — 13th |
| T. Wiliams | 2nd | 1827 | William Russell, 298 t | 221536 | Liverpool | — 15th |
| J. Cobley | 2nd | 1827 | Albion, 236 tons ..... | 21484 | London | — 17th |
| J. Wallis | 3rd | 1826 | Ottawa, 345 tons ..... | 14186 | " | — 17th |
| J. H. Pritchard | 2nd | 1827 | Cheviot, 145 tons ..... | 185364 | Milford | — 18th |
| M. Burt | 2nd | 1829 | Apolline, 481 tons..... | 326704 | London | — 24th |
| T. Thomson | 2nd | 1823 | Santipore, 515 tons ... | 355130 | " | — 31st |

## New Books.

The Petrel:—*A Tale of the sea,—By a Naval Officer, in three volumes:—London.* H. Colburn.

Our *fair* nautical readers will find the Petrel ship-shape from truck to kelson. Freighted as she is in the course of her cruizes with "Love on the Ocean," how could she be otherwise, although not a first-rate, than rich with alternate scenes of first-rate adventure, where skill and courage are displayed; and others no less interesting of *harmony*, peace, and *happiness*.

The author, whoever he may be, shews good taste, good seamanship, and to our mind good ideas of the discipline of a man-of-war, and can express them all as a gentleman would do, as they pass before him in the chequered scenes of life that he is describing.

The Practice of Navigation and Nautical Astronomy.—*By Lieut. H. Raper R.N., Third Edition.*—Bate, London.—Third notice.

At the risk of the charge of prolixity before concluding our notice of this work, we have yet another word to say of it. We have dealt with it rather largely, but we have considered it our duty not only to point out the merits of

it, but also to assist in exposing those absurdities in our system to which the author has alluded. Among other improvements we find a considerable amount of well digested information regarding the tides, and a table of passages between different ports useful enough in its way, but very seldom to be met with. And we are glad to perceive that notwithstanding the increase in the tables of sines and tangents by which differences to *single seconds* are given (no trifling recommendation) as well as the addition of much new matter, the bulk of the volume is not only by no means inconveniently enlarged, but the cost of it to the purchaser is less, being the same as older established works of the kind.

---

Abuses on Board Emigrant Ships.—The Adelaide (South Australia) papers of September last, which have come to hand, are filled with long accounts of public meetings and investigations having reference to the gross, brutal, and oppressive treatment by the seamen, mates, and petty-officers, of the passengers, especially the single females on board the emigrant ship *Indian*, on her voyage from England to that colony, where she arrived on the 7th of August last. The corroborated statements of the passengers, exhibit the greatest neglect on the part of the captain, and most infamous conduct on the part of the officers of the ship, and showed the absolute necessity which exists for more vigilant superintendance on the part of the government in matters of emigration. The charges brought against the officers of the *Indian* (which charges were but feebly denied by the accused) were, that the berths, of the single women were constantly open to the mate, &c. of the vessel; that every remonstrance on the part of the passengers was followed by ill usage and threats of worse to those who complained; and in one or two instances, of violent assaults, beating, &c., by the second-mate on a Mr. Hill and other passengers; that the doctor displayed the most cruel indifference to the wants and ailments of the passengers; and that, in the articles of food and water, the ship was miserably deficient: altogether, a catalogue of grievances which it is hoped but few emigrants have to endure. The committee of Female Emigration Society, which has collected so many thousand pounds to aid its objects, should at least assure those females who may wish to emigrate, that every care shall be taken to prevent a recurrence of treatment such as the unfortunate passengers by the *Indian* received. Without such a guarantee it were idle to expect virtuous females, or indeed any persons, to leave their native home.

---

The Late Yacht Voyage into the Arctic Sea.—A correspondent of the *Literary Gazette* says,—"In the interesting particulars of the Plover's Boat Expedition, accompanied by the yacht Nancy Dawson, published in the *Literary Gazette*, you omitted to mention the name of the owner of the yacht, Mr. Robert Shedden. As his death at Mazatlan was most likely caused by fatigue attending the arduous voyage from Icy Cape to Mackenzie and back, I am sure you will think with me that his name is deserving of some notice. Mr. Shedden was the nephew of General Sir T. Macdougal Brisbane, so well known in scientific circles, from whom he imbibed a desire for accurate observation and for the advancement of science. He entered the royal navy, and served throughout the Chinese war, in which he was severely wounded. He was mate of the Conway when she was in the Yang-tze-Kiang.

"Blessed with a splendid fortune, he built the Nancy Dawson, a perfect model both in design and construction. In this yacht he projected a voyage round the world; and stimulated by the success of Sir James Brooke in Celebes and Borneo, it was his intention to visit Japan, which, had he lived to accomplish, would have opened out to science and commerce a rich field for future exertion and enterprize."

TELEGRAPHIC COMMUNICATION WITH FRANCE.—The *Presse* devotes more than two columns to the details connected with the project of a submarine electric telegraph between France and England, for which Mr. Brett has obtained a privilege of 10 years from the French government. It appears from this account that the contract binds Mr. Brett to have his telegraph completed by the 1st of September next, but the French government reserve to itself the right of stopping the works before the 1st September, in the event of circumstances occurring to render this measure indispensable. A joint stock company, under the name of Brett, Tochè, and Co. the seat of which is to be Paris, has been formed with a capital of 750,000f., but Mr. Brett undertakes to complete the telegraph across the channel for 459,000fr. The two points fixed upon are Cape Grinez, near Calais, and the Shakespeare cliff, near Dover. The distance between these points is only 18 miles English, but the line of telegraph, consisting of seven wires properly covered, is to be 23 miles, to allow for oscillations.—*Daily News.*

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory. From the 21st of January, to the 20th of February, 1850.

| Month Day | Week Day. | Barometer. In Inches and Decimals. | | Thermometer In the shade. | | | | Wind. Quarter. | | Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | M. | 30·30 | 30·34 | 28 | 30 | 27 | 31 | SE | SE | 2 | 1 | og | og |
| 22 | Tu. | 30·48 | 30·52 | 31 | 35 | 28 | 36 | SE | SW | 1 | 2 | o | o |
| 23 | W. | 30·47 | 30·48 | 36 | 38 | 32 | 39 | SW | W | 2 | 2 | o | o |
| 24 | Th | 30·40 | 30·31 | 33 | 36 | 30 | 37 | SW | W | 1 | 1 | of | of |
| 25 | F. | 30·30 | 29·88 | 38 | 48 | 31 | 50 | SW | SW | 4 | 5 | o | qbcr 4] |
| 26 | S. | 29·42 | 29·44 | 47 | 48 | 45 | 49 | W | W | 5 | 5 | qbcp [1 | qbcp 3] |
| 27 | Su. | 50·46 | 30·56 | 27 | 35 | 26 | 36 | E | W | 1 | 1 | b | b |
| 28 | M. | 30·12 | 29·94 | 34 | 44 | 30 | 48 | SW | SW | 6 | 6 | qo | qod 4] |
| 29 | Tu. | 29·91 | 30·03 | 43 | 43 | 43 | 46 | NW | NE | 2 | 2 | bcp [1] | or 4] |
| 30 | W. | 30·21 | 30·30 | 35 | 38 | 34 | 39 | NE | NE | 2 | 2 | bc | bc |
| 31 | Th. | 30·21 | 30·10 | 33 | 39 | 28 | 46 | SE | S | 3 | 4 | bc | or [4) |
| 1 | F. | 29 84 | 29·72 | 50 | 52 | 46 | 54 | SW | SW | 3 | 5 | o | qo |
| 2 | S. | 29·82 | 29·84 | 50 | 53 | 47 | 55 | SW | SW | 5 | 4 | qo | op (3) |
| 3 | Su | 29·88 | 29·86 | 45 | 50 | 43 | 51 | SW | W | 4 | 4 | bc | bc |
| 4 | M. | 30·00 | 29 92 | 36 | 44 | 34 | 46 | SW | SW | 1 | 1 | b | bc |
| 5 | Tu. | 29·67 | 29·56 | 42 | 44 | 39 | 45 | NW | W | 2 | 2 | bcm | bcm |
| 6 | W. | 28·92 | 29·12 | 41 | 44 | 37 | 45 | NW | NW | 10 | 8 | qbcp 1] | qbc |
| 7 | Th. | 29·46 | 29·52 | 35 | 44 | 33 | 45 | NW | W | 2 | 4 | b | bc |
| 8 | F. | 29·73 | 29 71 | 42 | 50 | 34 | 52 | SW | SW | 5 | 4 | qo | o |
| 9 | S. | 29·61 | 29·46 | 48 | 49 | 47 | 50 | SW | SW | 6 | 8 | qbc | qbcp (3 |
| 10 | Su. | 29·94 | 30·07 | 39 | 45 | 36 | 46 | W | W | 4 | 4 | b | bc |
| 11 | M. | 29·86 | 29·52 | 42 | 43 | 36 | 44 | SW | SW | 5 | 6 | qor [2] | qor (3) |
| 12 | Tu. | 29 36 | 29·30 | 39 | 42 | 35 | 43 | SW | W | 4 | 4 | bcp [2 | bc |
| 13 | W· | 29·88 | 30·10 | 34 | 38 | 32 | 39 | NW | NW | 5 | 5 | qbm | qb |
| 14 | Th. | 30·13 | 29·92 | 39 | 44 | 29 | 50 | SW | SW | 5 | 4 | qop [2] | o |
| 15 | F. | 30·04 | 30·04 | 50 | 54 | 48 | 55 | SW | SW | 3 | 2 | o | o |
| 16 | S. | 29·91 | 30 16 | 45 | 47 | 45 | 49 | NW | NW | 5 | 6 | qbcp [1 | qbc |
| 17 | Su. | 30 33 | 30·29 | 42 | 49 | 37 | 49 | W | S W | 3 | 5 | bc | qo |
| 18 | M. | 30·23 | 30·18 | 46 | 52 | 44 | 54 | W | SW | 2 | 4 | o | b |
| 19 | T. | 30 15 | 30 08 | 46 | 50 | 43 | 51 | SW | SW | 2 | 3 | o | o |
| 20 | W. | 30 03 | 30·07 | 49 | 50 | 47 | 51 | SW | SW | 3 | 2 | op [1] [2] | o |

January, 1850.—Mean height of the barometer ==29·980 inches; mean temperature==33·4 degrees; depth of rain fallen 1·35 inches.

NOTICE TO CORRESPONDENTS.—We have received MR. DUTTON'S Parcel.

Hunt, Printer, Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

# Naval Chronicle.

APRIL 1850.

## Misrepresentations, Fabrications, and Delusions.—*The Limes, or a Long-shore Sketch of the Last War.*

"Bosom up my counsel
You'll find it wholesome."—Play Henry VIII.

There is perhaps, but little wisdom displayed in giving credence to information elicited from individuals belonging to an enemy: nor is it, though often considered as justifiable upon the grounds of every means being allowable and followed by either belligerent to outwit the one or the other, quite reconcileable with our refined notions of honourable dealing.

We employ spies, and look upon them much in the same light that we do upon the *bravo* who, for a few crowns, would stick his poignard into the ribs of any man; yet we praise their success, promote, or reward their want of honour and principle! How is that? Pah! Policy whitens black!

The buoyancy of youth is often hood-winked; the mistake is not, generally, in the heart; and when it is not there, we may forgive the ignorance of experience. Who deserves the bullet most, Andre or his employer?

I take it, the promoter is more dishonoured than the instrument; yet his act is pronounced venial! According to the vulgar phrase, to "pump" a prisoner is to offer a premium to deliberate misrepresentation. Is it not despicable? And does not the officer who would do

it, weigh his honour against the balance of a feather, and kick the beam? Jackalls to the Lion will ever be found wherever the carrion of morality scents the air which crosses their nostrils! Right-minded men observe and deplore these things; but where are the voices heard, in our "noble" service, to denounce them? Of what use is our moral courage if we allow it to "cream and mantle like a stagnant pool"? Do we fear reprehension, censure? Honesty of purpose, backed by truth, should be proof against either. We forget that it is not the part of a wise authority of commanding talent, or exercisable power, to censure the endeavours which have a tendency to correct error or folly.

To expect a patriot, a real disinterested lover of his country and its interests, to reveal the true state and condition of any portion of the defensive force of the state of which he is a subject, is unreasonable. To bribe him in any way, is unwarrantable, to force him by threats, detestable. It is asking a man to make a gratuitous surrender of his conscience, in the first place; in the next it is tempting him to commit a great crime, and, lastly, it is placing his moral and physical courage to the sort of test, which, if he yield to, dishonours him for ever!

It is, in short, asking him to do that which, it may be probable, the requirer would not do himself if the scene were reversed. Can a mean spirit descend below that, except that which bends the spine to kiss the Pope's toe?—"Ye gods and little fishes,"

> "Breathes there the man with soul so dead,"
> With brains e'en dull as molten lead,
> Who could descend, contempt below
> To make a traitor of his foe?

But, happily, it does not follow, as a consequence, that the power over the body of a prisoner of war, extends to the subjection of his mind, or the thoughts that it gives birth to, and hence may arise misrepresentation, frabrication, and delusion.

We have heard of bullying chiefs, who have threatened the "yard-arm" if the interrogated told not the truth instanter! How could these wiseacres discriminate truth from falsehoood on points of which they professed to be profoundly ignorant? Both attributes are invisibilities. There is one only unriddler, old Time. Had they usurped or borrowed his perspective? What if the result proved diametrically contrary to the revelation, would these men of power have dared to fulfil the threat? If not, they placed themselves on a parallel with the deceivers, without their merit, by *force* of excellent motive, in stretching the long bow. We may pronounce, without hesitation that, a commander guilty of prompting a prisoner to betray his country, is quite worthy of the post of deputy to the Grand Inquisitor!

It has been said that joy is not appreciated to the full, until sorrow be known; in like manner perhaps, the purity of truth is not sufficiently estimated until we have become the dupes of falsehood. The

recollections of the past may in a measure serve to illustrate this fact.

I remember, once on the Spanish Main, where Drake played off some of his buccaneering pranks, we were nicely duped by a batch of brown jacketed Pescadores, that we caught off the embouchure of the muddy Magdalena.

A boat was sent to the point where these fishers had landed to buy the produce of their hooks, and to glean information respecting the enemy's vessels on the coast, with a pre-determination, of course, to believe all that was to be told which tallied with our hopes, as most persons do when seeking information on doubtful points, but which they are anxious should be confirmed according to their particular wishes.

These fishermen, knowing from experience that they would not be molested, did not attempt to escape; they willingly sold the fish they had caught, and as readily answered the interrogatories put to them by the English officer. The sum of the information was that, there was a rich craft or two in a bay to the westward, which we should be sure to catch if the boats entered in on that side, the ship keeping to the windward!

Elate with this good news, two boats were well manned and armed, and hurried away in search of the "galloons." I was in one of these. We soon reached a beautiful bay, and commenced our search from its western extreme, prying into every break of the fine white sandy beach. Nothing however, was seen excepting very luxuriant trees, and flocks of birds, until we had arrived about the middle of the sweep, and though even here nothing in the shape of a vessel, not even a John Dory, (the smallest of canoes) presented itself. Yet the hopes which actuated and flattered the pursuit, were not dissipated, so fond are we of clinging to the slippery emanations of our wishes, even to the very fag-end where there is scarcely aught left of cobweb consistency for the mind to sustain itself! It was thought that the objects of our search might be hid from view among the mangroves to the eastward, within some snug cove, or hidden stream. At this time we were only a few fathoms from the beach; all was silent, there was scarcely motion in the air sufficient to stir the leaves of the trees of the dense forest which skirted the narrow plateau of green sward crowning the shelving strand.

Suddenly, the commanding officer called out "oars." With his glass he had discovered a grove of Lime-trees, not the *tilia* or linden, which pertains to a higher latitude, but the *citrus Americana*. The trees, it appeared, were loaded with most tempting yellow fruit; and I have not the shadow of a doubt that the idea, at the moment, uppermost in our gallant "Luff's" thoughts, was not dollars or doubloons, but rum-punch! He stood up, peered, and peered again, and again, through his telescope ; then, as if his "mind was made up," exclaimed, whilst rubbing his hands, after thrusting in the tube, and placing the glass upon the stern sheets, "By Jove, we'll have a prize of some sort

or other, our jaunt shall not at any rate be *fruitless!*" He looked very much as if he expected the wit of his peroration was deserving of applause, so, as a matter of courtesy, we all laughed in admiration. Let none think him, from this, a weak or vain personage. Trifles, in themselves harmless, often create good will and pleasantry. In this case, our officer fell into a very good humour, certified by his humming a lively tune, and beyond a doubt, he was at the instant, as happy as Falstaff with the conceit of the loves of his merry wives of Windsor!

Nothing seemed easier, Oh what credulous beings we are when we wish a thing! Nothing, I say, seemed easier than to beach the boats and fill them in less than the half of an hour, with a store of these inviting coolers of the parched tongue; but our young gleeful commandant never dreamed of "delusion", and that the fruit which appeared so handy and so easy of attainment might prove "forbidden fruit" to him.

Some, how many thousands! have come nearer the mark aimed at and missed it! Ha! a man's whole life, were it even to rival the lengthy protraction of the Anti-diluvians, is one made up of delusions. Yet, the experience of deception never serves to clear away the mists and the mysteries that shroud and crowd about the path of his pilgrimage! He plods on, rejoicing, or weary and sad, dreaming, as the moments fleet by, believing and leaning, as the Dutch wench on her broom-stick, upon the gilded staff of Hope, until the sun of his vitality dips into the sea of eternity!

What are the spells, the talismans, scattering wreaths of flowers in his path, blossoms, sweet-scented, but evanescent, to try to cheer him through the thorny ways in life's parterrie?

He weeps in sorrow, that all can understand, but, even too, in joy, when some exciting incident arouses the sensitiveness of the etherial essence of the spirit of the divinity within his frail tenement of clay. How strange!

In his pure love this spiritual essence is comingled with that of the object loved. It is combined; their heaven here, how long is to last this state of elysian delight, deep, impressive, wonderful, mysterious! Ha! the stamp of death is struck at the birth; the longest life is short; there end the delusions, the mystery is beyond?

The truths and realities that for an instant gild his heart's emotions with their dazzling warm sunny rays, then vanish into the dark recesses of the past! What delusions? Ask the tomb!

The *true* lies beyond the sphere of this world's attractions. The soul's elysium is not terrene. He believes in no delusion there. That is, and is felt a blessing, though no garrulous ghost has yet blabbed out the secret. Pray read, if you have not, "Blair's Grave".

Well, the boats were ran stem upon the beach; the tars all eagerly bent upon the delights of a *razzia* in this lonely, but inviting, and apparently unprotected, portion of the continental territory of the Dons, jumped out, and sallied up the slope of the beatifully white sand. The sun was unclouded, and the glare of his unobstructed rays upon it, daz-

zled the sight, and made everything appear as if in tremulous motion. It was a stark calm too, and the heat was oppressive; nevertheless, every body seemed joyful.

What a buoyancy of spirit agitates the sailor when his foot touches terra firma! Are his feelings definable? What is the difference to the sensations of gazing upon the land, and actually standing upon it? Throw a game cock, which has been shut up in a coop for weeks, suddenly into a farm yard, won't he clap his wings and crow?

The ascent was a tug; the grassy level was reached; handfulls were torn up and gazed upon as if the green thing was a curiosity? Some stopped an instant to touch with their foot the creeping sensitive plant, for the mere gratification of seeing it shut up its leaves; there was more rationality in that; the plant's action amused Jack, but the philosophy of the matter was a puzzle to wiser heads than his. The most delicious odours were diffused through the air; principally given out by the white blossoms of the less forward lime-trees. So powerful was the scent at intervals that, had a company of Roman ladies been present, we should have had our gallantry called into requisition, there being no *rue* at hand, to recover them from the fainting fits to which they are subject on such occasions; that is, upon the authority of Mrs. Piozzi; to us, of rougher mould, the inhalation of the perfume was a treat.

I know not whether the "sweets of Arabia", handed down as a fact from remote ages, be not, after all that has been said to uphold it, a mere metaphor, in fact, a misrepresentation; but here we were under no delusion, the scent being powerful.

There were abundance of crabs, of all sizes, scampering away helter-skelter, to get out of the path of the intruders, whose presence, even in this secluded and unfrequented spot, seemed to rouse their natural instinct of danger to their peaceful repose. Here and there, the large rusty black coloured buzzard, conspicuous from its bare and red head and neck, stalked along, very leisurely, close to the wash of the restless waves. I stopped to look at one of these winged scavengers, just as the men had reached the level; they, too, had halted to take breath after the pull up the slope. The grove of limes was a little farther in towards the margin of the forest. On turning round to proceed, the thought struck me, "Here we are, come to gather limes, with nothing to put them in. "What matter," said the lieutenant, the men can stuff their frocks full, and we may cram our pockets, and fill our pocket handkerchiefs." This was scarcely uttered when we were saluted by a volley of musketry! The limes, ha! where were those beguiling things? Did you ever observe the pleasing smile of confident expectation suddenly arrested by some unexpected *contretems*, and the vacant sort of expression which takes its place, the opened mouth, the stare of the eyes? No doubt you have. I therefore, need say no more to convince you that the whole party of excellent fellows, one and all, had their countenances lit up after that fashion. Then followed immediately that sort of electric laugh, almost peculiar to Englishmen in the moment of a droll but dangerous position, which seems to be the effect of one common

cause. "Oh oh!" quoth the lieutenant, very coolly, "by Jove, we must have a race for it my lads!"

Nothwithstanding the suddenness of the fusillade, not an individual had moved an inch from where we stood at the time. In an instant after, a troop of about an hundred *cavalleros* rushed from their ambuscade, popping away very gaily with their carbines. There was no alternative, the party having left their arms in the boats, but to rush down pell-mell, and get out of reach of the shot. There was a shout wafted after us as we started off, that sounded very like "*Como estan senores*"; but as may be supposed, we did not stop to verify it; we were at the "top of our bent" *sauve qui peut* for the occasion; and, as usual in a lark of this sort, merry enough! The bullets, thanks to the bank, made their ricochets very prettily over our heads, and fell harmlessly into the sea, no doubt making the little fry therein dart off in alarm.

It has been said that, "man creates more discontent to himself than ever is occasioned by others". In the present case, we could not conscientiously accuse the Dons, if we were inclined to be discontented; the cause in fairness belonged to our own carelessness. It was a most insignificant affair compared to the awful retreat from Moscow! How can they be mentioned in the same breath? Wrinkles come in the train of small as well as great things. According to the hero of that monstrous affair, man may struggle, as he affected to do, against his destiny in vain! Not he, but others say "*Dieu le veut*". It is doubtful, however, whether Napoleon was a utilitarian; he used fortune as a thyroidal subterfuge; the finale, nevertheless, left him bare! The mere common facts of life, false or true, to him were not worth believing, he believed that which was impossible of confirmation! Now, with all humility in daring the comparison, we lime-hunters! believed that only which the lead whistling through the air certified as a truth; and the head of a caballero or two thrust over the bank and quickly drawn back, confirmed.

The lieutenant's vision was a cheat. We were about to walk up to it not doubting its reality; how could we think it an impossibility, a delusion? The very bloom sent out persuasive heralds to invite us onwards; in effect, just as in early life we are beguiled by some siren's soft looks, never for a moment dreaming that deception may lurk under the fascinating smile of the most perfectly beautiful thing upon earth! We believed nothing beyond the (apparent) certainty that the limes were ours for the gathering. It was a mirage of the imagination; a concussion of air dissipated it, and, how laughable, the, all but now, most confident party, turned to seek a reality in the boats!

We gained a footing in them, relieved from a little anxiety, although in fact we were as much exposed to the fire of the enemy as when retreating. But the Dons seemed content at having driven us from the land; otherwise, had they dismounted and laid their bodies flat on the ridge, they might have shot every man in the boats, with little risk to themselves. Pulling out some distance, the oars were laid in, and an irregular interchange of shots took place for a short time by way of fare-

well; after which the gallant equestrians galloped away, satisfied, no doubt, at having fulfilled their duty.

We swept round the unexplored part of the bay, and then rounded the point in quest of the ship; having very energetically pursued "a search after truth", and found "fabrication!"

Before we started on our "wild-goose" chace, various were the opinions of the officers on the revelation of the fishers; yet hope, in the midst of doubts is ever so active with her wiles, that none were found decided enough to despise it altogether. On our return, they were all unanimous: what indeed could have been expected from such a set, well known as arrant *embusteros*. That was the after-thought; but a grain of common-sense would have helped us to the conclusion 'ere we lowered the boats. Let us for a moment enlarge our cogitations on the "persuasion of the mind", delusions are rife there.

The opinions of the mass of mankind are not the result of sudden reflection, or deductions drawn from analysis; much less from wisdom; but, for the most part formed from temperament, which is influential over the passions, from prejudices, from disposition of mind, and its frame of sentiment at the time, political, or party spirit, and not infrequently, from a judgment weakened by a want of exercise or practice, or naturally devoid of vigour, and, lastly, from a deficiency of moral perception, and ignorance of the physical sciences.

Even when a case assumes a simple form with reference to justice or humanity, it will be often found that there is no unanimity in the expressed conclusions of numbers. Indeed, even in so small a company as that which constitutes a jury, repeatedly we find a disagreement with reference to the verdict!

Perhaps, on no subject do Englishmen show a more lucid judgment, or are more unanimous than when there is a real or apparent infringement of their boasted liberty. Their sensitiveness on that score, with regard to all classes, save that of the seaman during war! is so remarkable as to attract the notice of foreigners. The exceptional point is one, however, which does not seem to be chargeable on the laws of the land, but has been a matter of expediency, which probably, will be remedied 'ere we engage again in warfare. Like negro slavery in America, it was a sad (ironical) commentary on privileged freedom.

With reference to the individual opinion of high authority, do we not find the judges differing? It is true that, that, shall we call it, phenomenon? may be laid down rather as the fault of the legal language of the statutes, &c., than as defect of the bench. But, in equity decisions? The Lord Chancellor and the Master of the Rolls, are human too.

We even find the same reflection made with respect to courts of honor. Noblemen have a privilege of being tried by their peers: in naval courts, all men are not so tried; would the results be different if they were? There is nothing absolutely perfect, morally, over the wide face of this world. However, when educated men are convened upon oath to act impartially, can there be more objection to superiors being the arbiters of the fate of inferiors, than to inferiors trying their superiors; or greater

still, as regards a supposed unconscious bias, equals giving sentence on their equals. But commentators know and feel that human judgments are, in all conditions of life liable to err; and therefore, the more severe among them, are apt to consider that misrepresentations and delusions, undesignedly become involved in the intricacies of human proceedings and pleadings; *ergo*, let every man be tried by his peer, and you would find the very same comment before your eyes! In a mixing of grades would the judgment be better?

Our fruit delusion may serve as a commentary on the reflections (anti) of human life, dreaming and so forth. But its exemplification was as nothing, compared to the thrilling and awfully sudden annihilation of the earthly hopes and expectations of two beings, at the moment full of health and spirits, that occurred a few years ago. A lady and her young daughter cheerfully tripping along, in anticipation no doubt, of some imagined pleasure which hope had lighted up for their enjoyment, in an instant passed from time into eternity! both having been literally crushed to death by the fall of a hogshead of sugar out of the slings, underneath which, whilst suspended, they ventured to pass.* "In the midst of life, we are in death." Was the arrest mysterious? The moral cause was a double carelessness; the why it should have been so, we know nothing about. Our little abortive expedition and its consequences, may be cast into the same category, bare of the awful extremity. We believed a misrepresentation, whether arising from others, or from our own expectations matters not; there was a delusion of the will, determinedly, or, if you please, foolishly careless of probabilities. We were like the negligent virgins who carried their lamps without oil. Had the muskets been in our hands, the mounted bush-rangers, judging from former experience, would have turned tail, and left us the field and the limes!

Men are not very apt to be merry at their own misfortunes; but they are such inconsistent creatures that, when these do not involve serious consequences to themselves, they will be so, if only to show their fellow-men how lightly their spirits carry the burdens which their own follies lay upon them! We, of the lime-hunt, laughed subsequently, at the drollery of the whole affair: but I do not think that the wrinkle gained upon the occasion, had much effect upon our future conduct; for it happened that we were deluded, one way or other, pretty often after the galloons. The lime-grove, and the equestrians were shut out of memory by new adventures! and thus, as I have said, in effect before, man is everlastingly duped; and often perhaps, whilst trying to dupe others!

* Undoubtedly it was a delusion of the mind, the confidence of security in passing under the suspended cask, instead of outside.

## Collisions in the Open Sea, *and the necessity of keeping a good Look-out at all times, and under all circumstances.*

"Don't you see the world's wide, there's room for us all."—*Old Song.*

*Madras, October 11th,* 1849.

Mr. Editor.—The fatal and disastrous consequences of a collision at sea have been so frequently before the public, that it would seem unnecessary, for any purpose of precept or example, to call further attention to the results thereof; but when a few of the most remarkable cases are brought forward, and such as cannot fail to point out the absolute necessity of a better, and a more efficient system of management and control than that which generally prevails in the Merchant Service, I am of opinion that the publicity and consideration of those events will have a good effect on every right-minded officer and seaman; because, they will plainly shew how often the lives and property committed to their care and protection, must be at stake; and how fatally they may be sacrificed through any neglect of those essential points of duty, which comprise care and caution eveywhere, and a vigilant look-out at all times, both by day and by night.

When the serious question of shipwrecks was enquired into before a Committee of the House of Commons on the 25th of May, 1843, Capt. Becher, R.N., was asked if in such weather as has prevailed within the last two or three months, would not collisions take place to a very great extent? he replied, "I do not think the weather has much to do with it, not so much as the want of look-out." He was then asked does it arise from want of lights? he said, "No, I think it arises from want of look-out on the forecastle. I think the look-out on board merchant ships lately has been very bad. I have a list of about 80 ships which have run foul of each other in the open sea; none have occurred in the river. I have also here the results of these collisions." In the course of that enquiry before the same Committee, several owners and commanders of merchant ships laid much stress on such neglect, and declared that *they attribute collision,* and *shipwreck to the want of a look-out.*

Now, Mr. Editor, I have no doubt that the lamentable collision between the *Europa* steamer, and the American ship *Charles Bartlett,* which occurred in the North Atlantic, on the 27th of June last, must be fresh in the recollection of your readers. I will therefore briefly state that that fatal event caused the immediate destruction of the ship, and 135 persons out of 177, who comprised her passengers and crew. So sudden and awful a calamity may have been considered as a case of unparalleled misfortune, but there is so remarkable a coincidence in the following narrative of the wreck of the *Governor Fenner,* which was attended with a far greater proportion of loss of life, that I have been induced to cite

these remarkable instances, as an especial warning to the seaman and navigator; but at the same time, I disclaim the slightest idea of imputing blame either to the one side or the other. The *Charles Bartlett* was run down in a dense fog, and the *Governor Fenner* came in contact with the *Nottingham* at 2h. A.M., during the dark and trying season of winter, in 1841.

"The American ship *Governor Fenner*, Captain Andrews, which sailed from Liverpool on the 19th at noon, for New York came in contact, on the following morning at 2 o'clock, off Holyhead, with the *Nottingham* steamer from Dublin for this port. The ship struck the steamer amidships. So great was the force of the collision, that the ship's bows were stove in, and in a few minutes from the time of the vessels coming in contact, she sank; the captain and the mate being the only persons out of 124 souls on board, who saved their lives. The *Nottingham* was dreadfully shattered, but having been struck in her strongest part, the collision was not fatal to her.

"From Captain Andrews, whom we saw on his landing from the *Nottingham* yesterday forenoon, we received a verbal account of the disaster, it was in substance as follows.

"We sailed from Liverpool on Friday last at noon, with the wind at S.S.W. The crew consisted of seventeen, and the passengers in the steerage amounted to 106. We had a full cargo of manufactured goods. On Saturday morning at 2 o'clock the wind blowing fresh from the S.S.W., and when the ship was under double reefed topsails (the jib spanker and mainsail in,) saw a steamer to windward on the larboard bow. The ship's helm was instantly put hard a-port. The steamer crossed our bow and we struck her right amidships. From the force of the collision, it was evident that either the ship or the steamer would sink, or perhaps both. Instantly I felt that the ship, the bows of which were stove in, was sinking I cried out to the crew (all the passengers were below) to endeavour to save their lives. They instead of running forward, through fear, ran aft, my first object was to endeavour to save the crew and the passengers, but so rapid was the sinking of the ship, I found it impossible to do anything to accomplish that object. I, and the mate then ran forward, and finding the ship fast sinking, I tried to jump on to the steamer. Failing in my first attempt, through a momentary faintness, I made a second, and just as the ship was at the water's edge, I succeeded in grasping a rope which was hanging over the steamer's side. The mate saved his life by jumping from the fore-yard arm on to the steamer's deck. In one minute the ship sank, with sixteen of her crew, and all the passengers, amounting together to 122 souls. The steamer's boat was instantly lowered, for the purpose of making an attempt to save such of the crew and passengers as might be floating, but it unfortunately swamped alongside."*

* This awful catastrophe is noticed by several correspondents in the *Nautical Magazine* in the April and May numbers of 1841, and as they speak of it, as of recent occurrence, I think it happened in January or February. It occurred, as they state in thick hazy weather, and a strong breeze.

I will now add a few other instances which I have selected from a long and melancholy list of similar disasters, and undoubtedly they do afford abundant proofs of the great value and importance of a good look-out at sea, which I must say is, as a point of duty, too often neglected. On some occasions it is a mere formal operation, as the hands who are stationed for that purpose neither care about, nor heed the necessity of it. They have no regard for the responsibility which attaches to their commander; and they consider the duty as irksome, and are oft-times found asleep. It therefore becomes the bounden duty of commanders and officers to prevent a lax performance of such emergent duty, and to enforce by every means a faithful and practical discharge of it, which can best be insured by the unremitting attention of the officer of the watch, who should repeatedly hail the look-out man, and should occasionally go himself on the forecastle and see that all is right and well. The neglect of so essential a duty which involves the safety of life and property should be provided for in any future enactment of Maritime law by a severe penalty, and two months' imprisonment on conviction of wilful negligence or being found asleep, would tend to check so frequent and glaring an evil. Commanders of ships give their orders, which are repeated by their respective officers; but the grand desideratum is a cheerful obedience throughout, and a practical and faithful discharge of every duty from stem to stern.*

Amongst forty collisions by merchant ships in the open sea which I have traced out from naval records from 1828 to 1835, twelve of that number were attended with loss of life; in three instances whole crews perished, and one collision caused the destruction of both vessels. Besides which, I am enabled to furnish the following eventful instances.

"In November 1829, Captain Hopper (commander of the *Royal Alice* now in this roadstead) when in command of the *Buchannan*, a brig of 282 tons, from Quebec to London, had a most providential escape. The brig was lying-to under a close reefed main topsail during an easterly gale in the chops of the Channel, when about 1h. A.M., a large ship before the wind was seen to windward, standing right down upon her: lights were immediately shewn, and a blue light was burnt; but still the ship stood on her course. The brig's crew then shouted with all their might, and the ship sheered off and passed within twenty *yards of her stern*, but no one person was seen or heard on board the ship, nor was any light shewn by her; in fact there was no one looking out.

"H.M. ship *Castor*, when off Dover, on the 27th of August, 1834, ran down the revenue cutter *Camelion* about 6h. A.M., by which accident thirteen of the cutter's crew, including her commander, perished: this sad event led to a Court Martial on the officer who had charge of the watch on board the frigate; he was sentenced to be dismissed the service.

* The captain cannot himself be always upon deck, but every pains should be taken to force conviction throughout the ship, that unless a proper look-out is kept, disastrous and fatal consequences may arise. Wreck, fire and mutiny have been prevented and overcome by vigilance and zeal.

"On the 16th of October, 1835, the *Golconda* and the Danish ship *Metador*, ran foul of each other during the night in the China Seas. The crew of the *Metador*, excepting two hands, sought safety on board the *Golconda*, and fortunately the ship *Duke of Sussex* fell in with the wreck of the *Metador* on the 17th. Within twelve hours after the collision, when Captain Horsman, with that zeal and intrepidity which he had often displayed, and a volunteer boat's crew, boarded the *Metador*, there was a heavy sea on at the time, and the service was attended with considerable danger. However, he succeeded and rescued the two Danish seamen, and some valuable property; all which he most liberally restored to the Danish captain; who, with the rest of the *Metador's* crew, was carried to China by the *Golconda*, and arrived there two days after the *Duke of Sussex*,—the *Metador* sunk a few hours after the *Sussex* left her.

"H.M.S. *Wasp* ran foul of the barque *Elizabeth* on the night of the 4th of May, 1837, when about 500 miles to the westward of Scilly. The *Elizabeth* was so much damaged that the chief mate and three of her crew, thinking she was in a sinking state jumped on board Her Majesty's ship. However, the *Elizabeth* put back and got safe into Falmouth; and the *Wasp* from the West Indies arrived about the same time at Portsmouth, with the loss of bow-sprit, cut-water, and figure-head. When the *Elizabeth* reached Falmouth, the commander was uncertain what ship he had been in contact with, but conjectured that she was a man-of-war, because a sheet of copper with a broad arrow was left on her deck, which must have been torn off the *Wasp's* cut-water.*

"About 2h. A.M., on the 10th of September, 1844, off Point Lynas Light, the iron steam-ship *Iron Duke*, 600 tons, came into collision with the brig *Parana*, 200 tons, the brig was nearly cut in two, and sunk immediately. So sudden was this fearful accident that Capt. Wilson and five of the brig's crew were thrown overboard by the concussion and perished: two of the seamen got on board the steamer, and three were picked up by her boats.

"The barque *Wellington*, Capt. Liddell, and the American barque *Sophia* and *Eliza*, came in contact between midnight and 1h. A.M., on the 8th of October, 1844, when in lat. 18° S., long. 27° W. The whaler was so shattered that her commander and crew abandoned and set fire to her, they were all taken on board the *Wellington* and conveyed to the Cape of Good Hope, where they returned their grateful acknowledgements to Capt. Liddell for the liberal and humane treatment they had received.

"The steam-vessels *Camai* and *Parsee* ran foul of each other on the Malabar coast about 11h. P.M. on the 29th of November, 1845; the *Parsee* sunk in less than a quarter of an hour after the collision, and in fact, as the last man of her passengers and crew (seventy in number) stepped out of her, she went down.

"The *Gilbert Henderson*, Capt. Tweedie, arrived in the Thames from

* Vide *Nautical Magazine* for 1837, page 327.

China; reports that she came in contact, on the 13th ultimo, in lat. 3° N., long. 20° W. during thick weather with the French barque *Irane Edmond*. The latter vessel sunk, crew saved.—Downs, March 27th, 1845.

"In May 1846, off the Cape of Good Hope, during the night, and in a gale of wind with thick weather, the barque *Columbine* from Liverpool to Sydney came suddenly in contact with a brig. The violence of the concussion was so great that there is every probability of the brig having foundered immediately, as she disappeared suddenly and the *Columbine* sustained considerable damage. The *Columbine* is described in Lloyd's register for 1846, as a vessel of 607 tons, she was scudding with a fair wind at the rate of eight knots per hour, and owing to the intense darkness of the night, the brig was not seen before the collision took place. The brig was under close reefed topsails, and not a man was seen or heard on board of her. The *Shipping and Mercantile Gazette* of the 30th of October, which quotes the statement of this disaster from the *Sydney Shipping Gazette* of the 4th of July, remarks this awful event must have probably occurred in the month of May last, *and it is hoped will operate as a warning to seamen to keep up a careful watch although danger is apparently remote.*

"On the 9th of August, 1847, the ship *Shanunga* from Liverpool to Boston, when in lat. 44° N. and long. 48° W., during thick foggy weather, came in contact with the Swedish barque *Iduna*, from Hamburgh for New York, having 208 persons on board: the *Iduna* sunk within half an hour after the collision. The *Shanunga's* boat, and one from the barque picked up thirty-four persons only: 174 persons, including Capt. Ernest Andrews Moberg, perished by this sudden and calamitous event."

The foregoing cases afford a series of clear and forcible examples, and they tend to indicate how essentially needful it is to be ever ready, and always on the alert, as there is no certain remedy, no safeguard, no means of preventing accidents, or avoiding imminent danger, unless the mariner is at all times, and under all circumstances, well prepared to encounter all the perils of the sea. Collision in the open sea and in narrow channels have, on the one hand, been avoided and prevented by presence of mind and a good look-out; but that great and perilous danger has been met by confusion and dismay; and has been brought about through a bad, or a blind look-out, *or no look-out at all.* Such glaring neglect and bad management, fraught as it is with calamitous results, is culpable in the highest degree, and demands a thorough reform and amendment, and most assuredly it behoves all who have the means and power of counteracting the evil to do their duty, and cast out and efface that charge of blame and negligence which every impartial person must confess has, in many instances, been fully proved and clearly substantiated.

The vast increase of steam communication, has materially added to the chances of collision, and is consequently an additional proof of the

necessity of further precaution.* In the North Atlantic there is more liability of vessels running foul of each other, than in other seas, but whilst we have proofs of collision in the Indian and China Seas, and know that similar occurrences have happened in the Bay of Bengal, and especially as we are well aware that other causes may lead to shipwreck, when there is wanting a good look-out; the warning and the caution to mariners which I have thus ventured to discuss, is a subject well worthy of serious reflection, and undoubtedly it merits due consideration. I, myself, have frequently noticed the careless, indifferent, and sluggish discharge of the duty I have urged and pointed out, and I have witnessed several narrow escapes; and there are many commanders and officers, who know too well that there is full scope for advice and admonition, where negligence not only involves their character, but tends to very serious consequences. I am of opinion that when a ship has cleared a narrow channel, or has from any port of departure entered upon the open sea, that an impression of confidence, *in good sea room*, has a tendency to relax the duty of keeping a good look-out. But the events which I have narrated, shew that even daylight does not give security, unless the mariner preserves a watchful and a vigilant care.

Under all these circumstances, it cannot be too repeatedly urged, that whether a ship is in the midst of the ocean, or in narrow seas, whether she is approaching rocks or shoals, or a well known coast, that a good look-out, and every care and caution are absolutely requisite. And we must also bear in mind, that if all those precautions are lost sight of, and give way to neglect, the mariner may, when he least expects a change, be taken so entirely by surprise that disaster and shipwreck may ensue. It is, therefore, indispensable that the experience of the past, should afford a useful lesson for the future, and induce a more steady and efficient system of naval management and control, and much of that system is borne out in that trite, but good old maxim, *Latitude, Lead,* and *Look-out*, which has too often been despised and neglected.

I am, &c.,

CHRISTOPHER BIDEN.

[We much fear that the Collisions referred to by our correspondent are as frequent now as they were a few years ago. The subject is an important one and with the view of ascertaining it, we shall commence a separate register of these fond embraces on the ocean, taking as a commencement the month of January. Our authority shall be that invaluable paper the *Shipping and Mercantile Gazette.* We shall at least preserve a curious

*Here is another lamentable case, on the 11th of July, 1845. The *Teatari* and the *Madjerae Tedjahmet* steamers, came into sudden collision in the Black Sea: the concussion was so severe that the latter vessel sunk immediately, seventy persons were saved, but 135 perished through this terrible night encounter, which was mainly owing to the absence of a well defined system of shewing lights, and the want of certain rules for the guidance of the helmsman on such an emergent crisis. But as fatal experience begets reform, salutary regulations for the management of steamers, have for several years obtained a universal practice. C. B.

collection of specimens of the kind of Look-out kept in some Merchant Ships, from which those concerned in them may derive a useful lession.—Ed.]

1. *Lowestoft, Dec.* 31*st.*—The brig *Percival Foster*, Fowler, from London for Hartlepool; reports was in contact with a schooner belonging to Harwich (name unknown) at 11 P.M.; the former had gaff carried away, quarter stove, and sternpost twisted, and is making a deal of water.—*Jan.* 1*st.*

2. *Sunderland, Dec.* 31*st.*—The *Liberty* (sloop), Lawson, of Leith, foundered at the same time and place, after being in contact with the *Britannia* (s); crew saved. The steamer bore up for the south, not being able to proceed northerly.—*Jan.* 1*st.*

3. *Exeter, Dec.*, 31*st.*—The crew of the ill-fated vessel *Cape Packet*, have arrived home here, and they say that she was cut in two, and sunk immediately, with loss of the master, Mr. Bond, and an apprentice.—*Jan* 2*nd.*

4. *Shields, Jan.* 1*st.*—The *Eliza*, Melville, of Perth, has put back to our harbour with loss of stanchions, bulwarks, and sustained other damage, having been in collision, near the Fern Islands, with the *Hope*, of Arbroath, on the 30th ult.—*Jan.* 2*nd.*

5. *Liverpool, Jan.* 4*th.*—The *Columbus*, for New York, has put back with much damage, having been in contact, 2nd inst, off Wicklow Bank, with the *Robert Pulsford*, from Calcutta, which also received damage.—*Jan.* 4*th.*

6. *Harwich, Jan.* 5*th.*—The *Union*, Gouthwaite, of Goole, from Antwerp, for London, put in to-day with sundry damages to her bows and rigging, having been in collision with the schooner *George IV.*, of Maldon, last night, off the Cork. The *Union* was at anchor at the time, and the other running down; wind W.S.W.—*Jan.* 7*th.*

7. *Yarmouth, Norfolk, Jan.* 5*th.*—The brig *Grog*, Haggley, of and from Jersey for Hartlepool, was in contact last night with a laden schooner (name unknown) off the North Foreland, when the former received so much damage, that she began to fill, and the crew were obliged to leave her. They were then picked up by the *Bristol*, of Sunderland, Mallett, who landed them here this evening. Mr. Haggley, and his crew, through the medium of the *Shipping and Mercantile Gazette*, beg to return thanks for the kindness received while on board the Bristol.—*Jan.* 7*th.*

8. *Bridlington, Jan.* 7*th.*—The *Charlotte* Matthews, of Dundee, from Rochester for Newcastle, put in here last night, having on board the master and crew of the galliot *Geerdina*, Van Borkum, of Emden, from Assens for Newcastle, which she was in contact with on the morning of the 5th inst.: Flamborough Head 25 miles distant, wind north-west. The galliot (barley laden) was left by the crew, who got on board the *Charlotte*. Mr. Van Borkum received a compound fracture of one leg, it being crushed between the two vessels, and has been landed here for surgical treatment. The *Charlotte* had bowsprit broken, and other damages.—*Jan.* 8*th.*

9. *New York, Dec.* 26*th.*—The Br. brig *Charles*, of Newport, from Cardiff for Wilmington, N.C., before reported run down by the ship *Galena*, at this port, and supposed to have sunk, remained afloat, showing a light until next morning, when the crew abandoned her, and were picked up in their boat on the 10th inst., lat. 33° 40′, long. 67° 30′, by Br. brig *Lady of the Lake*, at this port, from Bermuda.—*Jan.* 9*th.*

10. *Bristol, Jan. 10th.*—The *Hirondelle*, Perriere, from Newfoundland, last from Jersey, for this port, was in contact last night, about five miles south-west of the Nass Point, with the *Talbot* (s), from Caermarthen, when the crew immediately abandoned her, she being on her broadside. The steamer received no damage.—*Jan. 11th.*

*Bristol, Jan. 14th.*—The *Hirondelle*, Perriere, from Newfoundland, which was in contact with the *Talbot* (s), and abandoned the 9th Jan., was fallen in with on the 12th by the same steamer, on her return to Port Talbot, off Ilfracombe, and taken in tow. She being nearly under water, and it blowing very hard, the steamer also short of coals, she was compelled to abandon her again —*Jan. 15th.*

11. *Liverpool, Jan. 11th.*—The *Sea Nymph*, (s), for Drogheda, has put back with bow damaged, having been in contact last night, in the Victoria Channel, with the schooner *Port of Runcorn*, which sank; master drowned.—*Jan. 11th.*

12. *Whitby, Jan. 13th.*—The *Hope*, Wilson, of Whitby, *Gleam*, schooner, Wade, of Shoreham, and *Alexandria*, Sinclair, of Whitby, came into collision yesterday afternoon, having touched the sand after entering the harbour near the west pier, the former and latter having lost bowsprit and otherwise received considerable damage.—*Jan. 14th.*

13. *Buenos Ayres, Oct. 12th*—The British barque G.F.D., when on her way from the outer roads on the 27th ult., came in contact *with a boat of her own* which was in tow alongside, and the latter, being heavily laden with ballast, filled and went down; a boy therein, named John Kelly, aged 15, of Campbelton, Scotland, being drowned. The accident being known, a seaman immediately jumped overboard to endeavour to save the lad; a boat was lowered, the vessel's sails were backed, and every exertion made for that purpose, unhappily without avail, as the ill fated boy sank to rise no more.—*Jan. 15th.*

14. *Sheerness, Jan. 15th.*—The *Enterprise*, Brown, for Hartlepool, with loss of anchor and thirty-five fathoms of chain, in south-west reach, having been in collision with the *Crowley*, of Stockton, and having carried away the bowsprit and both lower masts of the latter. The *Crowley* still continues riding in south-west reach.—*Jan. 16th.*

15. *Cherbourg, Jan 11th.*—The *Uni*, Anyson, from Cannes for Dunkirk, which put in here in consequence of a collision with an English ship, off the Isle of Wight, on the 9th inst., at 6 P.M., has sustained considerable damage, and it is expected will have to discharge.—*Jan. 21st.*

16. *Portsmouth, Jan. 21st.*—Put in, the Dutch ship *Immagonda Sara Clasina*, Zoetelief, from Bavaria, last from Mauritius for Amsterdam, with cutwater and jib-boom carried away, and other damage, having been in contact with a ship (name unknown), off St. Albans Head, on the 19th inst., and has been towed into harbour to day.—*Jan. 22nd.*

17. *Southampton, Jan. 21st.*—Wind N.N.W., thick, hazy. The barque *New Forest*, from London for Rio Grande, put in here to-day, having been in collision with a Dutch ship, off the Wight, which carried away her mizen-mast and other damage.—*Jan. 22nd.*

18. *Report of the New Forest, Laing.*—Wind N.W., observed on Saturday, 19th inst., at 7h. 30m, P.M., a large ship standing up channel; hoisted a light, and put the helm up to clear her. *Not the least notice was taken*, she came right on, and struck us on the starboard quarter, carrying away three stanchions, quarter stanchion, bulwarks, and mizen-mast, and cut down two streaks

in the top; hailed the ship, and requested them to stay by us, but *no answer was returned*, and she kept her course. Supposed her to be a Dutch East Indiaman, of 1,400 tons. Left her fore tack bunting on board. Next morning stood in for the Wight, took a pilot on board, and arrived at Southampton.—*Jan.* 22*nd.*

19. *London, Jan.* 23*rd.*—The *Guglielmo*, Lauro, from London for Naples, which put into Dover 17th inst., after being in contact, has received but slight damage, and was expected to proceed yesterday.—*Jan.* 23*rd.*

20. *Cardiff*, 22*nd.*—The *Charles*, Moore, of Shoreham, was run into on the 9th inst., by a brig which he supposed was French. The *Charles* sustained damage, and the foreigner lost his bowsprit. Mr. Moore, master of the *Charles* complains of the master of the stranger not having offered any assistance, or waited to see if any such was required.—*Jan.* 23*rd.*

21. *Liverpool*, 23*rd.*—The *Royal Archer*, from London for Adelaide, foundered in lat. 19° S., long. 6° after being in contact with the *Benares*, Brown, arrived here from Calcutta; crew saved —*Jan.* 23*rd.*

22. *The Euphrates.*—In addition to our report contained in yesterday's *Shipping and Mercantile Gazette*, Mr. Wilson states the *Euphrates* arrived at St. Helena, 24th November, and sailed on the 25th; passed Ascension on the 30th, had easterly winds for six weeks; on the 21st of January, at 4h. A.M., when standing to the E.N.E., on the starboard tack, was run into by the Swedish brig *Staatsraad*, carried away jib-boom, figure-head, and cut-water. *Jan.* 24*th.*

23. *Yarmouth, Norfolk, Jan.* 25*th.*—Wind W., fresh. The *Didlesford*, Hawkins, from Sunderland for Margate, was in the roads yesterday; reports having, on the 23rd, been run on board by a large steam ship (name unknown) which did her sundry damage, and refused to stop to render any assistance; she had a white moulding round her.—*Jan.* 26*th.*

24. *Ramsgate, Jan.* 22*nd.*—John Hunter, seaman, belonging to the brig *Anna Maria*, of South Shields, was landed here to-day, from the fishing smack *Diligence*, Sparks, of Dartmouth. Hunter states, that the *Anna Maria* was run into by the barque *Ben Nevis*, on Saturday morning, the 26th, about 5 A.M., off Southwold, and that, about noon, the vessel foundered, having on board, in addition to her own crew, two men belonging to the barque, all of whom perished, excepting himself, who succeeded in getting hold of a piece of the wreck, from which he was taken by the abovenamed smack. Hunter also states that a sea struck the vessel a little before she foundered, and carried away the boat.—*Jan.* 28*th.*

25. *Deal, Jan.* 27*th.*—The *Joseph How*, Smith, from London for Liverpool, also lost an anchor and chain, and was afterwards in contact in the Downs, when she lost a second anchor and chain, and sustained other damage. She has proceeded to Dover harbour.—*Jan.* 28*th.*

26. *Aldborough, Jan.* 26*th.*—Off here, riding with two anchors out—The *George and Jane*, Greggs, of London, with a flag flying for assistance, having been in contact with another vessel; and three of her crew and a passenger having at the moment of the contact jumped on board the other vessel. The *George and Jane's* larboard quarter was stove in down to her bends, her deck started, and loss of fore-yard. The master could or would not come to terms with the boats that put off to his assistance, and the ship was riding in the same situation at dark, the wind blowing hard from N.E.b.N.—*Jan.* 28*th.*

27. *Yarmouth, Norfolk, Jan. 26th.*—The sloop *Samuel* and *Susannah*, Norton, from Sunderland for London, was towed and assisted into these roads to-day, with damage and leaky, having been in collision with a sloop (name unknown).—*Jan. 28th.*

28. *Yarmouth, Norfolk, Jan. 26th.*—The *Rival* sloop, Teed, of Wisbech, was assisted into harbour to-day, with broadside stove in, and other damage, having been in contact with the *Jessie*, of London.—*Jan. 28th.*

29. *Torbay, Brixham, Jan. 27th.*—Put in—the smack *Liberty*, Cornish, of this port, having been in collision on the 25th inst., at 4 A.M., Start bearing north-west three leagues, with the schooner *Venelia*, Kitto; carrying away starboard bulwarks, stanchions, rail, channel pumps, cut down two planks, split main-sail, and did other damage.—*Jan. 28th.*

30. *Lowestoft, Jan. 28th.*—The brig *Norham Castle*, Stokoe, of Shields, from Newcastle for London, reports on Friday, about 2 A.M., when about fifteen miles north of Cromer, under whole sail, standing to the south, observed a vessel coming in a direction for his vessel, and hailed her to keep her luff, but in a few minutes the vessel came in contact end on; the said vessel proved to be the *Golden Grove*, of and for Sunderland. The former lost jib-boom, bowsprit, fore-top-mast, had bows stove to the water's edge, and received much other damage; and fearing the vessel would founder, the master and crew got on board the *Golden Grove*, and requested the master to lay by their vessel till daylight, which he kindly consented to do, when finding her still above water they went on board, sounded the pumps, and found 3½ feet water, and were then taken in tow by the said brig, and the crew set about clearing away the wreck, &c, and set on the pumps, &c., and about noon the smack *Active*, of London, hove in sight, when the brig cast off and she was taken in tow by the smack, and reached Yarmouth Roads about 7 o'clock next morning.—*Jan 29th.*

---

## ORAL TRADITIONS OF THE CINQUE PORTS.—*By Capt. K. B. Martin, Harbour Master, Ramsgate.*

IN contemplating the past, it is well to consider that the Tales of the Olden Time have been handed down from father to son, and from generation to generation, principally as matter of speculative entertainment; and although the present *indefatigable and toiling race of Britons* (*generally speaking*) treat with contempt the vagaries and researches of the Antiquarian, and the deeply speculative mind, still they cannot but allow that these pursuits are innocent in their tendency. It is more healthful to inhale the sea-breeze in quest of shells and fossils—to climb the mountain's brow, or survey the massive ruins of antiquity—to collect specimens for our cabinets, which in years to come may beget an association of ideas pleasing to the mind—than to fume away our hours over the bottle, or degrade our intellectual faculties in the feverish haunts of dissipation.

My principal motive is, to afford amusement (particularly among my youthful friends) by awakening curiosity, and eliciting enquiry. History must be consulted to produce comparisons; knowledge will by that means

be attained, and the vacation of the student be a season of profit, instead of idleness, and habits of industry will banish from his presence that most intolerable companion, Monsieur *Ennui.*

In our journey through life, we neglect our social duties if we do not contribute, according to our means, to that universal fund from which knowledge and national intelligence receive their nurture and support.

The sciences should go hand in hand in the development of effects from causes, but this is seldom the case. The minds of men are diverse in their intuitive tendencies, and prone to contradiction. The geologist makes a discovery; the chemist labours to prove its impossibility; the antiquary points to centuries and dwells upon their remains exhumed from the ruins of time; the astronomer turns from such researches with indifference, treats them as puerile, and gazes upon the starry fields of Heaven whose records are *lost in infinity! Yet truth remains!* and it is only by listening to the dictates of *truth,* that any satisfactory progress can be made in any science. "Facts are stubborn things"; they corroborate each other! and it is much to be regretted that geology is so little attended to by Societies, which in their investigation of the coins, brasses, and monumental inscriptions of man are so apt to disregard the *Medals of Creative Wisdom,* the *changes* which are *surely,* but almost imperceptibly passing around them; changes, which in their progress record with much precision *mementoes of the past,* and point with unerring certainty to the *future.*

We stand upon the shore, and as the dashing surge undermines the chalky headland, and its crest is prostrated at our feet, we can but mark its annual waste. And when its geological features are considered, its undeviating naturally inclined plane, gives assurance that its altitude always decreases with distance, and its waste some ages back, must have been still *greater* than at present. When we trace this effect in the lapse of twenty centuries, a picture is presented to the mind's eye of the promontories which formed the estuaries and havens described by Roman Historians; scepticism vanishes, and tradition and history are confirmed.

It is impossible to deny, that the earth's surface has ever been, *and is,* in a transition state: the beautiful fossils which we pick out of the chalk, all evince the gradual but enormous pressure which the solidifying of the strata has undergone, and its consequent decrease in altitude. The slips and fractures, as certainly *prove* that in bye-gone days the earthquake has by its undulatory motion disturbed every part of its surface, that islands have been submerged, and lowlands elevated, that floods have driven to the shore at one point, the crumbling strata which they have swept away from another; and in our own day, the sea yields up to us continually the giant remains of mammoth and rhinoceros, compared with which the present living specimens are pigmies. It is then a *mere question of time,* when such creatures lived and moved, and had their being; but the forest which fed and the trees which sheltered them as a natural consequence, have also *disappeared! When? that is the question!* The changes now are *gradual,* but there must have been a time when they

were more sudden and decisive. Extinct volcanoes and basaltic caverns give sufficient evidence of this, in every district of Europe; and it was not till the early centuries of the Christian Era, that the northern kingdoms appear to have settled into comparative *physical repose!* We shall examine this more closely as we proceed to compare the *Traditions of the Past,* with the *geological evidences of the present,* combined with the investigations of the antiquary, which, however, are unfortunately more exposed to imposition, and which the wisdom and vigilance of that energetic society have prudently *cautioned* its members to be *guarded against.* The tracings of Nature's pencil cannot be invented, whether we ascribe her momentous changes to "the sea following the perihelion in declination," and alternately invading either hemisphere in the lapse of ten thousand years, or adopting the more modern hypothesis, consider volcanic agency as the sole disturbing cause, (and these forces may have some relation to each other) still the *proofs* remain, *proofs* which point to that beneficient Almighty author, with whom "a thousand years are but as yesterday," seeing that which is past, as a watch in the night. How many amiable literary men, shrink from these investigations for fear of impugning scripture evidences. The eye of faith regards the bible as the spiritual history of man.

A revelation suited to the condition of the whole human race, and its consummation in christianity, has been the belief and consolation of the most expansive intellects. Newton was a christian, and many of our most eminent divines are geologists, and recognise in the sacred page, the most probable order of creative love. Napoleon, after a life of conquest, and close analysis of human minds, convinced at last, is said to have expressed himself thus to his bosom friend, "I tell you Bertrand, that *I* have known and studied men, and I tell you that *Jesus,* was not a *man!* His religion is a self existent mystery! and it proceeded from a mind *superhuman!* There is in it a deep peculiarity of character which has produced a code, and succession of doctrines and characters till then *unknown. Jesus* borrowed nothing from *human knowledge,* neither was he a philosopher! for his *proofs* were *miracles,* and his disciples from the very first adored him! In fact, *science* and *philosophy* are powerless to salvation, and the sole object of Jesus in coming into the world was to *unveil* the *mysteries* of *Heaven,* and the laws of mind. Alexander! Cæsar! Charlemagne! and myself have founded empires, but on what did *we* rest these creations of our genius? *upon force!* only. *Jesus* has founded an empire upon *love!* and at this moment, millions of men would *die for Him!* It was not a day or a *battle,* that won the *victory over the World* for the christian religion! No! It was long war! A fight of three centuries, begun by the Apostles, and continued by their successors and the christian generations that followed. In that war, all the kings and all the powers of the earth were arrayed on one side, and on the other side I see *no armies!* but an *immortal, invincible arm,* a mysterious force! A few men scattered here and there, in all parts of the earth, and who had no *rallying point,* but *faith* in *redeeming love!* In the *mysteries of the cross!* I *die!* before my time! and my

body will be put into the ground to become the food for worms! Such is the fate of the once great *Napoleon!* What an abyss between thy deep wretchedness, and *Christ's Eternal Kingdom! proclaimed! beloved! adored!* and spreading through the world! *Was that dying?* Was it not rather to live?"

The christian philosopher's reply, would be, yes! it was! To *Live for ever!* and who after such a confession could fear that philosophic investigation would ever in tracing cause and effect, become sceptical as to *Spiritual Truths!*

It is certainly more pleasing to prove the evidences of antiquarian research by appeal to geological facts, for it requires to be continually borne in mind, that our predecessors have left us very deficient of determinate data for our investigations. Take for example the relative changes of land and water. We have very little historical evidence, few *recorded facts*, and were it not for *oral tradition*, which with feeble light, shines through the mists of ages, the reminiscences of ancient days must have passed into oblivion. Let us then compare them in our retrospect of that interesting portion of the British dominions, the five stations of Roman surveillance, the Cinque Ports of the present day.

Oral tradition must have had some source more worthy of credit than the love of the marvellous, or the idle inventions of mankind; for in days long past it was regarded with extreme veneration. The names of places and of things were carefully preserved, and transmitted from generation to generation, as an unfailing register of sudden casualties and extraordinary events. The mind of the historian may be warped by national prejudice, or misled by ignorance, but the antiquarian will find in natural causes, and their effects, proofs of the truth of oral tradition too strong to be refuted by books, many of them uncertain in their origin, and most of them the productions of monastic or secluded men. It is very natural to judge of the capacities of our fellow men by our own feelings and standard. Hence, a very clever writer on the antiquities of Dover, expresses a doubt as to the precise situation of Julius Cæsar's army, and the proximity of Cassivelanus, with his warlike Britons, because "The sending a messenger sixty or seventy miles, through an uncultivated country, intersected by two large rivers, would certainly have retarded the business." Did he then believe that the hardy barbarian of Britain, was less a man than the Mohican of the American forest, or the Cisalpine Gaul of coeval history? What would have been such a distance to an Indian following the trail of his enemy? What to the skin-clad warrior of Albion, rushing towards the frontier of his invaded country, and excited by the war-cry of his chief? Yet the same writer assures us Cæsar was awed by the warlike appearance of the Britons, who lined the shore to oppose his landing, and that he sailed a considerable distance along the coast before he attempted to disembark his legions.

I find also, in the history of the Isle of Thanet, a lame attempt made to discredit oral tradition, and to prove that the extraordinary changes which have taken place in its neighbourhood were brought about by the

gradual recession of the sea. Yet, had the reverend author been as good a geologist, and mathematician, as he was an amiable pastor, he would have perceived that he has negatived his argument in his own pages, where he describes the burial place of Ethelbert as a fortress now covered with the deep, yet at some times in very low tides visible, its demarcation perfect, the strata around it abounding in Roman pottery, coins, and armorial fragments, &c. &c. The latter is a well-authenticated fact.

And the sea in lieu of receding, is advancing along our whole line of coast in the Isle of Thanet, of which we shall speak hereafter. The Reculver Rock is unquestionably the ruins of an ancient fortress, at a comparatively short distance from the churches, which (but for the artificial means used to preserve their remains) would soon share the same fate. If the recession of the sea from the estuaries on our coast had been gradual and progressive, how could we possibly account for the extraordinary discoveries continually made in our tracts of marsh land? The Richborough Channel and Wantsume, were both extensive oyster grounds: So say Tacitus, Antoninus, and others of the Roman writers.

But little attention seems to have been given by our ancestors to a study of the physical sciences, or their histories would not abound with so many inconsistencies. In the same breath they speak of an isthmus having united England and France, and dispute the tradition of Godwin Island. They assert the probability of an inundation of the whole of Flanders and the low countries, having drained away the waters from the Thanet levels and left them dry, and yet allow the Shepway adjoining Kent to have been submerged. How very unphilosopical! If cause and effect were confined to so small a space, the depression of land would raise the waters; but these men did not contemplate the North Sea, as part and parcel of that mighty ocean the myterious and gigantic tidal column of which advances and recedes in majestic grandeur twice in every day we breathe, true to time and space; or, the yet unfathomed source of the Atlantic and Pacific Oceans. Imagine but a single tide heaving in terific grandeur, in one convulsive throe its restless bosom: imagine the islands in question submerged! What are the waters of the North Sea compared to this tidal wave—their parent source! The mysterious equipoise of the first receding tide would restore the level of their fluid field! Fertile islands might become barren lands! But that the multitudinous ocean would be affected by such a change is not rational! A temporary undulation might follow, but like the rings which succeed the falling of a pebble upon a pond, they would spread away upon the bosom of the Atlantic, and sink to rest amid its vast expanse of waters.

If we dig a well in many parts of the marsh, the first soil gives place to a confused mass of marine substances, flints, and fossils, hurled indiscriminately together as if by a sudden bursting in of the sea in its fury; and to these succeed a line of shelly strata, regularly deposited, as is the method with all the beds or reservoirs of oysters. In tracing this strata to that part of the coast near the Reculvers, where the entrance of the channel existed, we have a convincing proof that it was no gradual

recession, but a more violent operation of nature, which destroyed this and several other armlets of the sea upon our coast. Here, upon a stratum of disrupted chalk, united by a muddy cement, is a deposition of sea-sand, shell, chalk, flints, and other marine substances, in an undistinguished mass; not in regular lines, but, to use the language of Fussell, "resembling the figures upon what is called marble paper." Above this variegated stratum is a layer of light sand and pebbly flints, about two feet in thickness, being the last deposit of the waters. What but a terrible inundation, or stormy convulsion of nature, would have produced these effects and appearances, and thus have choked the mouths of the channel? Are there any proofs, then, of the gradual recession of the waters? What has become of the land around the Reculvers, of Whitstable Street, and great part of the Island of Sheppy? They are all existing proofs of the impossibility of the sea having gradually retired from a navigable channel, converted the anchorage of navies into smiling pastures, and, at the same time, have covered for ever the stone-built fortress, in the immediate vicinity, or buried the greater part of a town, a few miles distant, in the bosom of the deep.

The following exhibits the super-position of the strata at Minster as bored through in the formation of Artesian Wells, near the lowest levels of marsh lands in 1845. On removing the vegetable earth in many of the gardens, the oyster beds are found from one to two feet below the furface. Then follows the blue clay (usually found in all estuaries) to a depth of six feet. This reposes on a quick sea-sand, to a depth of fourteen feet. To this succeeds seventy feet of black hard clay with sulphurets of iron (pyrites), and this reposes on a thin layer of flint boulders, rounded by attrition and resting on the chalk, or hollow of the Sandwich basin. Thus we have from the surface to the base, ninety-two feet of alluvial deposit, and upon the margin of the shore, which terminates these marshes at Cliffes End, may be seen a most interesting line of strata, affording complete evidence of several changes in these levels! Marine and lacustrine shells there alternate in layers which must have been uplifted to their present position far above the highest tides which now flow only up to the foot of the bank, and under which the chalk dips in regularly defined slips and fractures, amounting to a depression in altitude between this and Ramsgate of sixty feet. These are evidences of earthquake not to be mistaken. These oysters so praised by the Roman epicures eighteen centuries ago, must then have been covered to a considerable depth at the *lowest* tides: they are now in many places, much above the high-water mark of the *highest* flood. Now, let us consider the nature of these convulsions. They may be compared to the undulations of the bosom of the deep, with this difference;—after the disturbance ceases the sea resumes its placid level; not so the stubborn earth, its waves of undulation remain, and I have seen in the Azores after an absence of only six weeks an estate so altered that I should not have recognized it as the same; mounds depressed,—hollows uplifted; and tolls of orange trees launched from their position like the removal of a ship from the stocks!* Thus cause and effect only differ

* Consul Read's estate in the Island of St. Michael.

in degree. If oral tradition has any foundation in fact, islands were submerged when this estuary was raised into a marshy flat, and that a most extensive devastation did take place upon our coasts of the Northern Sea, and British Channel, in some period of the Saxon heptarchy, is generally believed in the history and traditions, both of our own country and Belgium. Treating it, therefore, as a matter of amusement and speculative inquiry, we will begin with the Cinque Ports; and, in comparing their present topography with their ancient traditions, I think we shall find that the mighty waves of the ocean do not abandon their empire; but, while they encroach upon our chalky cliffs and promontories, undermining their base, till their nodding crowns are precipitated into the restless tide, they have in no one instance left proofs of a retrograde movement, except where, by the erection of breakwaters, natural causes are counteracted by artificial means. Or a natural beach has been thrown up against the base of the head-lands, and protected them from the encroachment of the sea. As a case in point, we have only to examine the continual waste upon the galt formation eastward of Folkstone and contrast them with the majestic line of cliffs east of Dover, to the South Foreland. The former has wasted rapidly during the last century; the latter preserves its contour from time immemorial; having an inclined plane of shingle before it, securing it from the inroads of the sea. Or, following the line of coast compare the South with the North Foreland, during the last half century, a period which enables us to give our own testimony. From Dover to St. Margaret's Bay I can look on the same features of the precipice which greeted me in my boyhood, the same mounds of green, and patches of wall-flowers at its base where we assembled in our gipsy parties *fifty years ago!* the same *marks in the cliff*, resembling a sugar loaf, *the cutter under sail*, which (as the tale went when I was a sea-boy) had oft been fired at by mistake in the shades of night; these still exist; but all the associations of the past are melting into the ocean tides along the whole margin of the *Isle of Thanet*, and there is no doubt this rapid advance of the sea upon the North Foreland commenced when the channel of the Wantsume was choked, and the tide which before that ebbed and flowed through, between Thanet and the mainland of Kent, fell with all its *momentum* upon the chalk cliffs to which its stream has been diverted.

It appears, from history and tradition, that the Romans had fortified those prominent features of our coast, which in after years the Norman invaders designated the Cinque Ports: it is also evident that the Romans selected the most eligible places for the reception of their fleets, and the encouragement of general commerce and intercourse from their being on a parallel with those ports in Gaul, from whence their armies would embark on their continual and successive expeditions, and affording so many immediate and direct keys to their newly acquired dominions. That they would also erect piers and moles for the better protection of their navies is without a doubt: it was always the first employment allotted to the conquered by their victorious consuls. Hence, we find

the port of Civita Vecchia, or Rome, was entirely raised by the Egyptian slaves, in the reign of Trajan; and the manner of building, with those people, afforded quickness of work and solidity of structure: caissons were formed, and huge masses of rock placed in them: the intermediate spaces were then filled in with a liquid cement, which, as it hardened, penetrated into the more porous substances, by which means it was firmly attached and became an impenetrable solid mass. Those who have travelled on the shores of the Mediterranean, and observed the magnificent moles of ancient engineering, will find the stone, in many instances, worn away by the restless waters, and the cement, hard as adamant, defying their power.

Admitting, then, that the Romans, when established in Britain, pursued the same line of policy which they adopted in Liguria and Gaul, what has become of the harbours they constructed, and why are their remains buried in oblivion, while the moles and piers in the Mediterranean still exist as imperishable monuments of their former skill and energy? Was the material on our coast less durable?—No! Dover, Studfall, Richborough, Chilham, and other fortifications, exhibit a cement in their walls from which the tool of the mechanic recoils as though it had struck upon iron. Is it rational, when we inspect the ruins of these once powerful fortresses, the strongholds of a renowned and enterprising people, or when we accidentally lay bare a suit of magnificent baths, and costly pavements (as at Dover, beneath the old church)—is it rational to suppose they would neglect a shelter for their navy, or build a line of fortifications where there existed no pier or harbour to protect and defend? What then, we will ask, has produced the difference? The practical engineer will have no difficulty, I think in solving this problem: the Mediterranean has no sensible tides, no considerable rise and fall of its waters, no recession of distance from high water mark, leaving its harbours dry, and then rushing in a mighty flood, rising to an elevation of twenty feet in a few hours, impelled perhaps by the sweeping hurricane driving its resistless billows in terrific grandeur to the strand, and fearfully overleaping their ancient boundaries; thus creating changes upon our coasts unknown in the Mediterranean. By such causes, most probably, the Roman ports were ruined, at a period when the energies of the projectors were withdrawn from the aid of a country then retrograding, as fast as the arts and arms of its conquerors had called it into civilization and power. Britain at that period of its history, must have resembled an adopted child, suddenly deprived of its foster parents, and exposed a prey to the world. If we may believe Tacitus, Marcus Flaminius, and others, the Britons were a noble minded people: but the age was a sun of glory sinking into a night of darkness and ignorance, clouded by superstition, and debased by barbarity. The Britons were again vanquished, not by the conquering legions of Rome, but by the rude unpolished warriors of the North; the Britons were enslaved, and their local history and records perished with their freedom. The early Saxons were careless even of established towns. Adventurers of the European seas, and warriors of the forest, they

neglected the establishments so necessary to a more social and improved state of society, and their rule in Britain has very properly been classed by the historian among the dark ages. What wonder then if the decay or destruction of the noblest relics of antiquity was unheeded or despised; or that the earthquake, or tempest, was ascribed to the anger of their fancied deities, in lieu of being recorded as natural phenomena, for the instruction of succeeding generations? The Normans were not so slow in appreciating the value of the Roman fortifications. Governors were appointed to improve the stations, and they soon received the appellation of the Five or Cinque Ports.

(*To be Continued.*)

---

NOTES AMONG THE ISLANDS OF THE PACIFIC.—*Extracts from the Remarks of H.M.S. North Star, Capt. Sir E. Home, R.N., Bart.*

(Continued from page 38.)

APPROACHING the Island of Upolu from the south-east (it is the centre island of the group) it appears to be of considerable extent and height resembling the Island of Timor, the extremities tapering to long points. The body of the island is of very irregular form, being broken into sharp peaks and hummocks, one great chasm appearing to divide the island nearly into two, and one peak being very remarkable. The scenery of some parts of the south side of this island may be called truly magnificent. Off the east extreme there are two islands; that nearest Upolu is the largest and has a peak; the eastern end of it is rather bluff; the island appears to be connected with the main land by a reef. The southern island is smaller, has its two extremes nearly alike; it has no peak, but a large round hummock which may almost be called a saddle. The night of the 23rd was very fine: we stood off and on until morning when we stood in and passed round the eastern end of the island and outside of the small islands before mentioned. To run for the anchorage off Apia a ship should not have less than four hours daylight before her. It is necessary also to be well to windward, for with the breezes which blow here, a day may be required to regain the loss of a few hours. Boats of European rig were seen passing along the shore. The pilot signal was made, and as no attention was paid to it, a gun was fired to enforce it, upon which a canoe with five persons who were fishing, immediately paddled to the shore, hauled her up and left her. Upon this part of the island there is a deep opening, much resembling that seen yesterday, with which it corresponds. There are many high peaks, and the north side may be considered mountainous; there is, however, a great deal of level land, and land that is in gentle hills and slopes. The island is covered with timber to the top.

Not liking to run to leeward without some certain knowledge of the

position of the harbour, I sent a lieutenant on shore to make enquiries; he returned with information upon that point, and announced that the name of the place where he landed was Sufibufi, and that there was another village farther west called Sutufata, and that the people were alarmed, as they believed the ship was French, coming with priests to make them change their religion. There was a Portuguese pilot at the place, but he was too much alarmed to come off to the ship. We ran down the coast W.b.N. for the anchorage, which was fifteen miles to leeward. Apia lies under the last mountain excepting one from the west end of the island which terminates in a long low point. On the mountain under which the village is placed, there is a great cataract about one-third from the top; it can be seen from twelve to fourteen miles at sea. Numerous large craters are seen in sailing along the coast. The eastern end of the island is free from coral; sailing westward it gradually increases, as may be seen from the light colour under the water. Off Apia it extends further from the land than on any other part of the coast; the sea breaks all along its outer edge. We ran down within half a mile of the reef.

Apia is a reef harbour, the opening into which will shew itself, and the eye with attention to the helm will be sufficient guide. Steering in, the cataract will be right ahead, and with the village under it, the passage in is clear; the depth of water decreasing gradually from 15 fathoms at the entrance to eight. Anchor in 7 fathoms, and moor 30 fathoms each way, east and west. The harbour is small, and will not contain more than six moderately sized vessels in fine weather, the rise and fall of the tide is about six feet. Water here is most abundant and easily obtained, a river running on each side of the village. Pigs, poultry, excellent yams and firewood, are to be had in plenty. To this place the whalers resort for refreshment. Standing along the land, the island of Tavaii is seen in in the north-west; large patches of cultivated land, also are seen nearly to the tops of the hills of Upolu; the hill next beyond that upon which the waterfall is, rises apparently from the water's edge to a considerable height. Beyond it there is another hill from which the land gradually falls to a very low point. After leaving Vavou the winds were fresh from S.E., E.S.E., S.b.E., and E. and the weather fine; the barometer ranged between 29·97 and 30·05, the thermometer from 70° to 83° and the sea water from 79° to 83°. This island is one of the finest and most valuable that I have seen. It is mountainous, well wooded to the tops of the highest hills, it is extremely fertile, and produces spontaneously the citron, (which was found as high up as the waterfall,) nutmeg, indigo, coffee and sugar-cane. It is abundantly supplied with water. On the south side I am informed there is a larger cataract than that seen by us; it is evidently of volcanic origin. There are craters two miles in circumference upon some of the hills, lakes as well on others.

The harbour, although exposed to the north-west, from which quarter the heaviest gales are common between the months of November and March, is yet safe, for although with the wind there is a heavy sea, there is at the same time a great quantity of rain, and the water comes

from the hills in such great torrents that its counter action, flowing out, beats down the sea rolling in, the harbour is kept quiet and the ship rides to the fresh. In this way ships will ride out the heaviest gales in perfect safety without tightening their cables, which I am informed was the case when the American Squadron were in the harbour in 1840.

These islands must increase in importance, as the Australian Colonies gain ground. The natives will require support, and the general disposition to wear European clothing will soon cause an increased demand. The islands are not governed by kings, but are divided amongst chiefs who govern their own particular districts. The island of Upolu is divided into three sections.

I have received two accounts, one of which puts the number upon all the islands at 22,000, of whom 4,500 are heathens. By the principal missionary I am told that upon Upolu alone the numbers were 25,000, of whom 5,000 were heathens. Upon Tavii 16,000, of whom 500 were heathens. Upon Maura 1,428, who are all christians, and at Tutuilla there are 5,000 inhabitants, of whom 200 only are heathens. The probability is that, upon Upolu the numbers are 2,500, they do not appear to be so numerous as upon the other islands which we visited. The missionaries are Independents of the Kirk of Scotland, they translate the scriptures, print, bind, and distribute to the groups of islands.

The principal member of the mission, Mr. Mills, landed in 1836, not then knowing one word of the language. Upon the Navigator's group there are in all sixteen missionaries, ten of whom are upon Upolu. There are besides about sixty Englishmen residing upon the islands, deserters from Whalers, penal settlements, &c., all men of indifferent and bad character. Of the trade of this island, I was informed by the American consul, that in 1842 fourteen ships, English and American, entered the port; in 1843 there were twenty-three; in 1844 up to August 30th, the *North Star* making up the number, the majority was in favour of America. There is a trade here with the Feejees in curiosities which are, sent to the United States or Sydney. Orange courie-shells, which are ornamental, are sold for £5 the pair, clubs, arms, human teeth, and Feejee wigs are the principal articles. The Feejee wigs are made from the hair of those killed in battle, and the teeth are procured from the same source. The price of the former is a dollar, the latter sixpence each, and they find a market amongst the dentists in the United States. This trade tends exceedingly to keep up the wars which always exist between the tribes of that group of islands.

The number of canoes daily about the ship for trade were from five to six, with four or five men in each. They brought clubs which were sold for a shirt or a flannel each; spears for a fathom of calico; shells for a bottle or a piece of tobacco; pigs for three or four sticks of tobacco, according to their size, but they were very poor; pigeons and poultry, two bottles for three fowls; cocoa-nuts six for a stick of tobacco; plantains; or bananas twenty or thirty, and pine-apples three or four for a bottle. They were the best pines I have tasted out of England.

This was the season for pigeons, which are extremely numerous, and

the best I ever met with. The natives were all engaged in catching them, and scarcely a man could be met who had not one in a string.

The natives of this island do not cut off their little finger as at the Friendly Islands, nor do they sit cross-legged as they do; but squat as the New Zealander does with the back erect and the ham perpendicular with the leg. Many have lost one eye, so that it became almost remarkable to see a person with two. The proportion is believed to be five in every hundred, I believe it to be more. Mr. Mills has studied surgery, for every missionary is master of some useful profession: he is clever in removing cataract, and on this account is looked up to by the natives with the greatest respect, being not only a teacher of religion but is able to cure their prevailing disease.

The people of these islands are not equal to those of the Friendly group, they are not such fine men, nor so free from disease or deformity, nor are they so clean. The women wear their tapa garment in the same way as the Mexican wears his poncho. The head is put through a hole in the centre, and the cloth hangs down before and behind. I am assured that this is the orginal native mode of wearing it: in grown-up persons this seldom falls below the waist. The stores of the firm established here, furnish neat and sometimes gaudy dresses, which are displayed particularly on Sundays. The articles in greatest demand are umbrellas and bonnets; it is not unfrequent to see a woman with two bonnets on her head at a time, the umbrella being to shade them from the sun.

Tapa is here not made by beating, so much as by pressure. It is done by rubbing out the bark, when well soaked in water, with a shell upon a flat board held between the knees, but it is not so good as that made by beating. The missionaries are endeavouring to break the young men of the custom of tatooing themselves, but they find it difficult, for boys when they reach the age of seventeen or eighteen, will go off into the bush, and return in about ten days or a fortnight finished. It is, however, seldom seen, being upon parts which are most carefully concealed, but they are not considered men until it is done. The pattern is in strait lines, as in the Friendly Islands, reaching to the knee, and so close as hardly to leave the natural skin untouched.

The village stands in a grove of bread-fruit and cocoa-nut trees; the house of Mr. Mills being the most conspicuous, and is a good building with a neat garden in the English fashion. The church also is in the European style, the floor boarded and the windows glazed, but it has not the handsome or simple character of the native buildings. There is a large building intended for a store nearly completed, built of stone, which gives some idea of business to the place when seen from the ship.

The village is paved with large black boulder stones. The most remarkable native building, is a house used for public meetings, and for debating upon matters of importance. The orator is in general the second person in the place, the chief being the first. The orator's daughter has the highest rank among the women. This building is 102 feet long, 22 feet wide, the height of the ridge pole 21 feet, the wall plate 5 feet 8 inches, from the ground; the roof is supported by twenty-

two pillars, eleven on each side. The house stands in an open part of the village, fronting the sea, shaded by trees, the floor being neatly paved with small pebbles.

On the 28th a party of the officers reached the fall, and returned much exhausted, after a long day's work. There are two falls, and I am informed by Mr. Sutherland the purser, an officer well able to judge, that the first is about 100 feet in height, the upper one being not less than 400 feet, over a perpendicular and perfectly smooth face of the rock. The height of the fall above the sea is about 1000 yards, and distant from the ship about thirteen miles. We found upon our arrival that they were in error in their time, being exactly seven days in advance of the truth.

The weather was very fine during our stay here, there was rain with squalls twice, the winds from E., E.S.E., to S.E., moderate and light, the barometer ranged between 29·88, and 29·95, the thermometer from 80° to 88°, the temperature of the water in the harbour 82°, the dip of the needle was 27° 41′ by two sets of observations, the variation of the compass by the two cards 6° 35′ E. The soil here is black and remarkably magnetic; the latitude of the village by meridian altitudes of two stars observed on shore, 13° 49′ 29″ S.

On the 1st September the ship left Apia, and steering W.b.S., expected to make Wallis Island on the 3rd; the weather on the 2nd was fine with a moderate breeze E.b.S. On the 3rd at noon, the latitude was 12° 53′ S., the longitude 175° 31′ W., the weather continuing fine; but in the afternoon it came on squally with strong breezes and rain. About 11 A.M. upon that day, discoloured water was observed all round the ship, and westward as far as the eye could reach from the mast-head.

On the eastern edge of the bank, the depth of water was 45 fathoms, it shoaled suddenly as we advanced W.b.S., for two miles to 12 fathoms, when we tacked and returned the way we had come, the depth of water at noon being 12 fathoms. The coral at the bottom was distinctly seen, the soundings very regular from 12 to 14 fathoms until off the bank: no broken water was seen. At 4 P.M. on the following day Wallis Island was seen bearing N.W.$\frac{1}{2}$W., the day had been fine but it came on cloudy with squalls and rain towards evening.

At daylight on the 5th stood in, and soon after saw the island bearing N.W., it is of moderate height; the surface varied; one hill is seen of irregular form and higher than the rest: eastward of it there are islands extending to a considerable distance. Drawing in with the land from the southward, a long low island appears eastward; and westward the hill above mentioned, with a small island on each side of it. They are all covered with trees, particularly cocoa-nut. The remarkable rock called the "Sail Rock," from its exact resemblance to a boat under sail which ever way it is viewed, was reported as a boat coming out: the village was seen and appears to the naked eye like a cliff, or patch of barren rocks amongst the green foliage which surrounds it.

There appears to be one continued reef all along the island. Being to

windward and no boat coming off, at half an hour before noon we ran down westward to the small island, round which was the entrance between it and the hill before mentioned. Soon after noon a pilot was received, a native of France; at 3 P.M. when it was slack water, stood in N.b.E.½E.; for the opening, a channel of about 120 yards in width, through which the tide runs at the rate of about eight miles per hour. Great attention is required at the helm: the length of this narrow channel is about a quarter of a mile.

Having passed the reef haul up N.E.b.E.. Two patches of coral will be seen, pass between them; that on the starboard hand will have fourteen feet, the other five feet water upon it; care must be taken to avoid the other light coloured patches, for they are coral reefs and shoals; the eye will be sufficient guide: the remarkable rock above mentioned will be seen a head; the anchorage is about a quarter of a mile south of it, in 22 fathoms sand and coral, the Sail Rock bearing N. 9° E., and the centre of the hill near the entrance N. 74° W. The south side of the harbour is bounded by a line of low sandy islands, connected by coral reefs, upon which the sea continually breaks with violence. The land north, which is the largest of the group of islands, is high and apparently productive; the islands are all well wooded; no good water is to be obtained here. This anchorage is not good, the bottom being of coral mixed with sand; the anchors hooking the coral are frequently lost, but the danger of the passage in or out, caused by the force of tide making through, and the narrowness of the channel is a sufficient objection to it. There is another passage on the west side, but fit only for small vessels; the rise and fall of the tide is eight feet.

This island is divided between protestants and roman catholics. A roman catholic bishop has settled here, and made these islands a centre from which to spread that religion. The followers of the two religions were preparing to make war upon each other, and little information was to be gained here. An Irishman who had spent the early part of his life in a man-of-war, and was generally drunk, was the only person with whom I could communicate. There is another person, an Englishman, named Thomas Jones, residing upon the island, but he did not appear. The natives in most things resemble the people of Tonga Taboo, excepting that they wear their hair long; indeed I never saw what a head of hair was until I came to this place; loose, it is a most perfect protection to the head against the rays of the sun, and in rainy weather tied round upon the crown of the head no wet could penetrate it. They all wear a girdle of leaves round their waists; the leaf is small, and many of them very sweet. This is universal, and is seen whatever clothes are underneath; a man wearing a good pair of duck trousers still has his girdle, the leaves hanging down about four inches.

The island is governed by a king whose name is Lavellaur. He calls himself a roman catholic, and is a very stupid person, living at a distance from the village.

The ship was generally visited by ten canoes, each having eight or ten men or boys in them. They brought pigs, poultry, yams, sweet potatoes,

shells, cocoa-nuts, coral, tappa, mats, cocoa-nut-oil, papau apples, plantains, bananas, &c., but no clubs, spears, or warlike implements; they were all wanted on shore. They know how to drive a bargain, and will hold out in their demand of a shirt, for a thing that is not worth the tail of one: the things in greatest demand are old clothes, and cloth of any sort of European manufacture: the landing is good.

The village is a poor place, with a large church, the priests living here as those at Tonga do, miserably. The town and island appears to be under control of an intelligent, but yet ignorant native, who is the proper pilot for the place; he is a pagan, but holds with the roman catholics against the protestants. The island appears to be thickly peopled. The protestant portion of the island, is headed by Tephaniah Boe, the king's half-brother, a very intelligent native, and educated. Complaints of the eye are common here, the inside of the lower lid of the eye turns down, and is exposed. They are subject to great swellings of the limbs, also to sores, from what cause I know not, which entirely eat away the skin leaving the muscles bare; ulcers also are common, but no care is taken of them: some are crooked and deformed, but the greater number are tall, and well made. I have seen none in my opinion so fine as the Tonga people.

---

## WAVE-GUAGE—*Proposed by Capt. W. S. Moorsom.*

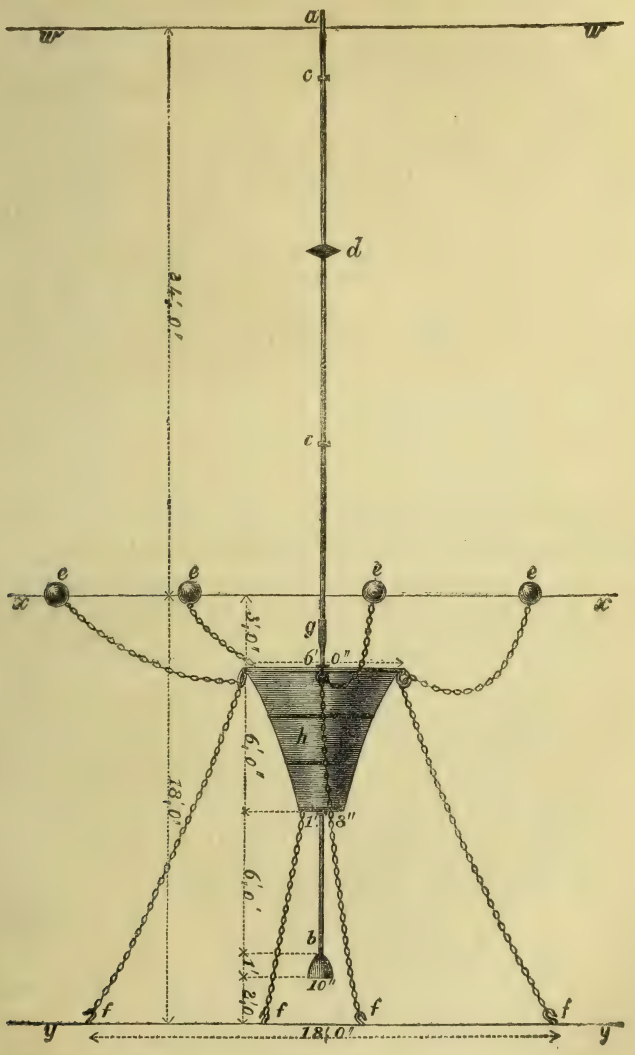
THIS guage is intended to determine the maxima of dip and elevation of any wave, where moorings can be obtained; and whether off shore, or over sand-banks, or other ground in the ocean, where a holdfast can be found.

The buoy *h* shewn in the sketch, composed of metal, and air-tight, is perforated throughout the length of its axis with a hollow cylinder, through which is passed and fixed a metal rod, *g b*, weighted at the lower end, and having a screw joint at *g*, which projects above the upper surface of the buoy.

The buoy is to be moored with small mooring chains *f*, at dead low water, sufficiently below the level of it *x x* and that of the maximum dip, or hollow of the wave to be out of the way of such vertical action. The mooring chains may be secured to the bottom, *y*, *y*, by grapnels, or the mooring screw, or the lewis as each position or character of stratum at the bottom may render preferable. The ends of the chains are to be brought up through metal rings on the upper edge of the buoy, and a spring catch or stopper upon every alternate or occasional link of the chain, will enable a boat's crew to bowse each chain as taut as may be desired. Small buoys, *e*, *a*, will keep the ends of the mooring chains ready for service at low water.

A graduated metal rod, hollow or solid as the position and capability

of procuring either may admit, is then to be inserted in the screw joint at *g* before mentioned. The graduation of this rod should be such as to be visible from the shore, or if in open sea, from the vessel from




whence the observations are to be made. If only the maximum and minimum of wave oscillation is wanted then no graduation is requisite

upon the rod; but where observers on shore, such for example as at a Coast Guard Station, are to note frequently the time of tide and the corresponding oscillations, it will be necessary to graduate the rod, so that a telescope shall detect the movement of the ferrules.

The ferrules *c*, *c*, are hollow short cylinders, sliding on the graduated rod when they receive a blow from the disc *d*, as it slides up or down the rod on the surface of the passing wave but fitted so closely to the rod, as to prevent the act of sliding by their own gravity, or by the rush of water past them.

The disc *d*, is composed of two thin plates of metal, shaped each like a quoit with the edges brought together, and a hollow cylinder passed through the centre of the two plates, so that the whole forms an air-tight case floating on the crest of the wave, or on the lowest dip of the hollow; and sliding up and down the rod with the oscillations of the wave as its gravity depresses, or its power of flotation may force it to rise. The ferrules are thus struck by the upper and lower edges of the disc alternately, and remain to mark for the observer the graduated heights until a more violent action shall force them still further apart. It will be seen that the disc itself thus affords a constant index of oscillation, while the ferrules also give the maxima periodically.

W. S. MOORSOM, C.E.

---

THE QUICKEST VOYAGE TO AUSTRALIA.—GREAT CIRCLE SAILING.

MR. EDITOR.—That sailing on the arc of a great circle, or what is called "Globular Sailing" is as old as the hills, every seaman knows who knows anything of navigation, and you are aware that with the view of facilitating it, the Admiralty has lately published a set of tables constructed by Mr. Towson, which enables the navigator to take out his course by inspection from time to time, without resorting to a lengthy calculation. Doubtless a straight line is the shortest distance between any two points, and on the earth's surface the arc of a great circle is the shortest distance between them, because it approaches nearer than any other to a straight line. No wonder then that in these days of steam navigation, when a ship can lay her head whichever way she pleases, that great circle sailing becomes of importance. I have met with the following notices of it; one which has recently appeared in our own papers, shewing the advantages of this kind of navigation, and the other comprising an account from the *Cape of Good Hope Shipping Gazette*, of the fatal consequences of adopting it, or what is so scientifically termed, "Composite Sailing." The writer of the last appears, for reasons therein stated, to differ from the doctrine of Composite Sailing, and, quotes Capt. Erskine's advice on the subject (supported by those of many Merchant Captains), as it appeared in the *Nautical Magazine* of August last.

Had the unfortunate *Richard Dart* taken Captain Erskine's advice, the sad event which occurred, would have been avoided. SINBAD.

"An unprecedented short passage to Australia, by the emigrant ship

*Constance*, having produced a greater sensation among those interested in Australia and New Zealand than any voyage ever before made, we are enabled to publish the following additional details of the track Captain Godfrey pursued by the aid of Mr. Towson's valuable tables.

"We may state that about twelve months since Captain Godfrey underwent a voluntary examination at the Port of Plymouth, and obtained a first class certificate. During his examination he became first acquainted with Great Circle Sailing, and its modifications, and the consequent value to navigators of "the Admiralty Tables to facilitate the practice of Great Circle Sailing" especially to those engaged in voyages, such as he was about to undertake. He immediately resolved to make what the author of the tables has termed the composite track, which is thus described in the work alluded to :—"To follow the Great Circle track rigidly, would sometimes lead through latitudes so high, as to be impracticable; this generally happens, too, when the greatest amount of distance would be saved; but, though in such cases it would be unwise to attempt the great circle, yet there is a very simple application of these tables, which will give the shortest possible route consistent with a restricted maximum latitude."

"The mariner is then directed to choose his maximum latitude, and Captain Godfrey chose the parallel of 55 degrees. This voyage disappointed the expectations of Captain Godfrey; although far shorter than the average time, it was not the shortest voyage ever made. He discovered that in latitude 55 the winds were light and unsteady; he was therefore obliged to return to the parallel of 50 degrees. Although, however, he failed in the object he had in view, he acquired experience which to himself and the commercial world is of the highest importance —he has ascertained that the composite track on the parallel 50 degrees is the shortest practical route to Australia, for although the route of the parallel of 55 maximum latitude is 160 miles shorter in distance, the advantage of wind gives the unquestionable preference to that of 50 degrees. The next voyage he brought this knowledge into practical operation, and has astonished the men of mercantile pursuits by making the shortest voyage ever known.

"The composite route to Australia does not differ from other voyages until the mariner has reached about the latitude 24° S. Having cleared the trade winds, he then shapes his route on the arc of a great circle, varying his course by compass according as the latitude of the ship varies, as shown below; or he sails as near to these courses as the direction of the winds will permit.

"The courses are as follow :—

| Lat. | Course. | Lat. | Course | Lat. | Course. | Lat. | Course. |
|---|---|---|---|---|---|---|---|
| 25·0 | S.E. | 39·30 | S.E.b.E. | 46·0 | E.S.E. | 49 0 | E.b.S. |
| 30 0 | S.E. ¼ E. | 41·30 | E.S.E. ¾S. | 47·0 | E.S.E. ¼ E. | 49·30 | E. ¾ S. |
| 34·0 | S.E. ½ E. | 43·0 | E.S.E. ½S | 48 0 | E.S.E. ½ E. | 49·45 | E. ½ S. |
| 37·0 | S.E. ¾ E. | 44·30 | E.S.E. ¼S. | 48·30 | E.S.E. ¾ E. | 42·57 | E. ¼ S. |

"This part of the voyage is about 3,480 miles, and brings the ship 68 degrees of longitude nearer her destination. She then runs due east on the parallel 50, to about 72° 40′ of longitude, being about 4,360 miles, and

then leaves that parallel by the route of a great circle for her destination. "The last named part of her voyage is 1,865 miles; and about 45 degrees longitude—making altogether, from the commencement of the composite track, 8,145 miles; whereas the same voyage by the Cape, and thence to Adelaide, by Mercator's sailing, is 9,080—making a saving of distance to the amount of 935 miles, besides an equal saving of time from the uniform favourable winds that blow in these latitudes.

The foregoing is apparently the bright side of the question. The *Richard Dart* adopted the Great Circle course from the Cape to Australia, and here is a result in the

### Wreck of the Brig Richard Dart.

This lamentable event has excited such great and painful interest, that we have taken the trouble to procure as full and accurate an account as possible. The following particulars have been furnished to us, and their correctness may, we believe, be relied upon.

The brig sailed from Gravesend on the 5th April, bound to Auckland (New Zealand), having on board as passengers, Lieut. Liddell, R.E., twenty-eight Sappers and Miners, four women, and nine children, Dr. and Mrs. Fitton and child, Dr. Gale, and Mr. Kelly. It appears by the statement of the commander, that at half past 3 P.M., on the 19th June, land was reported right ahead, about a mile distant, which turned out to be on the north side of Prince Edward's Island. The vessel was immediately brought to the wind, and an attempt made to put her about, but having missed stays, they endeavoured to wear short round. Just as she was before the wind, she struck heavily on a sunken rock and beat over it, the roller having stove in the stern windows, filled all the boats, and torn them away from the quarter and booms; and swept into eternity forty-seven unfortunates, who a few minutes previously had been in good health and spirits, looking forward with hope, anticipating no evil. Mrs. Fitton had fallen on the deck, and as the booms rose, the lower part of her person was jammed underneath the spars; Lieut. Liddell held her hand, and supported himself with his other hand on the rail; the Captain and survivors flew to the main rigging (except the mate who saved himself from the bowsprit-end), when a second roller broke over the vessel and swept away the gallant young officer and the suffering lady, whom he had vainly endeavoured to rescue from her awful position. In all probability, had he taken refuge in the main rigging, he would have been saved to the Service, of which he promised to be an ornament, and his parents and friends would have been spared a loss which only time, and resignation to the Divine will, can alleviate. The brig was driven broadside to the shore, the mainmast fell shoreward, the survivors escaped on it (with the exception of the mate as above mentioned), and in a few minutes the hull separated to fragments.

The rocks being precipitous, they had great difficulty in reaching the cliffs, several seas breaking over them before they reached a place of safety. It was then dark, and they all huddled close together for the sake of warmth, and passed a wretched night. The next morning they found a few blankets on the rocks and some clothing, but no provisions,

except a single piece of beef. They then constructed a hut with pieces of the wreck, and allayed their hunger by eating the raw flesh of young albatrosses, which they found in their nests.

After seven days' rest, they exerted themselves in exploring the island, undergoing the most dreadful suffering from cold and snow-storms (one of the soldiers dying from bruises and the effects of frost), and on the 42nd day after the wreck they fell in with a party of men, in the employment of Mr. Jearey, of Cape Town (who are left there for a time to kill sea-elephants and prepare the oil,) who generously shared their stock of food equally with the sufferers for thirty-two days; when the schooner *Courier*, of Cape Town, touched at the island with a supply of provisions, and the wrecked party embarked in her, and having touched at the Crozette Islands, they arrived in good health in Table Bay, on Saturday morning last, the 10th of November. The names of the survivors are as follows:—Samuel Potter, master; John Mills, chief mate; Edward Pirnie, Richard Collins, John Campbell, Thomas Jenkins, and William Jones, seamen; James Read, Thomas Inglis, and Owen Deviney, sappers and miners.

Lieut. Liddell was the son of a naval officer well known in this city for his urbane and amiable manners. He commanded the *Wellington*, for many years, in the trade between London and Madras, and never passed the Cape, either outward or homeward bound, without paying his friends here a visit; they all most cordially sympathize with him and his family, under such distressing circumstances.

We beg to refer our readers to an article published in our last number (and which we have been requested to reprint in the present), headed "Passage from the Cape to Australia,"—and containing *sound and judicious observations* as to the best parallel of latitude to run down the easting.* It is earnestly recommended to the attentive perusal of commanders of vessels, who, by following the course which it points out, will not only avoid serious dangers, but probably have more favorable winds and weather, than on any other course.

The *Richard Dart* was steering E.S.E. in a strong northerly gale, with thick and rainy weather. For five or six days previous to the wreck no observations had been obtained; by dead reckoning she was supposed to be in lat. 44° 50′ S., long. 36° 40′ E. We believe Prince Edward's Island, is not correctly laid down on the charts, for the masters of several vessels in the employment of Mr. Jearey, make the north side of Prince Edward's Island to be in lat. 46° 5′ S., and long. 37° 7′ E. We cannot vouch for the correctness of this position, but there can be no doubt that it is much safer and better to keep on the parallel recommended by Capt. Erskine, R.N., say 38° or 39°, than further to the southward, and to avoid so high a latitude as 45° or 46°, for the reasons given by that officer.

[We give the above as Sinbad's remarks on this subject. But it is evident that Great Circle Sailing has its advantages and disadvantages. However as we have received a paper respecting the voyage of Capt. Godfrey from another correspondent, we shall reserve any further remarks for the present, excepting that Prince Edwards Island lies immediately in the track of ships adopting it, and a dangerous one it is between the Cape and Bass Strait.—Ed.]

* See *Nautical Magazine* of August 1849.

## Outline of the Voyage of H.M.S. Enterprize and Investigator to Barrow Strait *in search of Sir John Franklin.*

(Concluded from page 170.)

It was now quite hopeless to attempt regaining Barrow Strait, for the ice was fast forming over the sea again; and along the water line of the ships a bright white streak was formed by the freezing sea: it was moreover covered anew with pancake ice of sufficient substance to retard considerably the vessels' progress through the water, unless a strong breeze was blowing; and in shore the ice was too firmly set to allow the ships to approach any harbour in which they could be secured for the coming winter. Under these circumstances all that could be done was to endeavour to get out of the country, but the nights were very long and dark, and it was a matter requiring care and great attention to avoid the innumerable bergs which are ever found in Baffin Bay, and extending in close communication across Davis Strait. Owing to strong southerly winds it was nearly a month from the time we cleared the pack off Lancaster Sound, till we reached the latitude of Cape Farewell. Here then we were favoured with fine westerly gales, which hurried us along rapidly, and the first land sighted was the Northern end of Orkney on the morning of Sunday the 28th October; but we did not anchor till the 3rd of November, off Scarborough, where a supply of fresh provisions was obtained for the refreshment of the crews; and the ships were ordered to the Thames, in which river they anchored on Saturday, the 11th November off Woolwich, and where they were paid off on the 26th of the same month.

J. D. Gilpin, *R.N.*

### Officers of the Arctic Ships *Resolute and Assistance.*

*Resolution.*—Captain H. T. Austin, Lieutenants R. D. Aldrich and W. H. J. Browne; Master R. C. Allen; Second-Master G. F. McDougall; Purser J. E. Brooman; Surgeon A. R. Bradford; Assistant-Surgeon R. King; Boatswain E. Langley; Carpenter R. Hall; Mates R. B. Pearse and W. W. May; Midshipman J. P. Cheyne. Additional for service in *Pioneer*—Lieutenant S. Osborn; Second-Master J. H. Allard; Assistant-Surgeon T. R. Pickthorn.

*Assistance.*—Captain E. Ommanney; Lieutenants F. L. McClintock, J. E. Elliott, and G. F. Mecham; Second-Master W. Shellabeer; Surgeon J. J. L. Donnet; Assistant-Surgeon J. Ward, (*a*); Clerk in Charge E. N. Harrison; Boatswain H. Osborne; Carpenter W. Dean; Mates R. P. Hamilton; and G. R. Keene; Midshipman C. R. Markham.

---

### Government Reward for the Discovery of Sir John Franklin.

*London, March* 7, 1850.

"Twenty Thousand Pounds Reward will be given by her Majesty's Government to any party or parties, of any country, who shall render efficient service to the crews of the discovery ships under the command of Sir John Franklin:—

"1. To any party or parties who, in the judgment of the Board of Admiralty, shall discover and effectually relieve the crews of her Majesty's ships *Erebus* and *Terror*, the sum of £20,000.; or,

"2. To any party or parties who, in the judgment of the Board of Admiralty, shall discover and effectually relieve any of the crews of her Majesty's ships *Erebus* and *Terror*, or shall convey such intelligence as shall lead to the relief of such crews, or any of them, the sum of £10,000.; or,

"3. To any party or parties who, in the judgment of the Board of Admiralty, shall, by virtue of his or their efforts, first succeed in ascertaining their fate, £10,000.

W. A. B. HAMILTON, *Secretary to the Admiralty.*

---

### ADELAIDE MEMORIAL FUND.

This proposal which was made in a former number, will recommend itself to the attention of our readers, when its objects are understood, more effectually than any advocacy of ours. We shall rejoice if the publicity it obtains through these pages contributes to its success, and in the mean time the following notice of progress, made towards its establishment by Ladies who are indefatigable in good works, shews that success to be pretty certain.

*London*, 16*th March*, 1850.

SIR.—I beg most gratefully to acknowledge the kindness with which you have met my former suggestions respecting the fund to be raised as a memorial to the late deeply lamented, and most excellent Queen Adelaide, and applied to the maintenance, and education of the Orphan Daughters of Naval and Marine Officers.

I now take the liberty of trespassing again on your attention, to enclose a list of names, which I am sure you will have pleasure in looking over, as a proof of the warm response the appeal has solicited, and at the same time earnestly to request the favour of your further cooperation, in a plan that has already called forth so large an amount of sympathy and support. We are now only waiting the formation of a gentlemen's committee, to give it wider circulation, and to solicit a patron under whose sanction and auspices it may be presented to the public.

I feel that in such a cause in connexion with such a memory, it is but to make known the want, to secure the services of an active, and devoted band of volunteers.

In order to prevent misapprehension, I wish to state positively that *no building whatever* is proposed as any part of the plan; *the fund itself is to be the monument*, and should the sum raised, equal the anticipations warranted by the patronage already given, the gratitude of generations on generations of helpless orphans, will be the noblest and most suitable, as it will be the most durable of monuments. And while there is so admirable an institution as the Richmond Royal Naval Female School, the only thing wanting is a fund, of which the children may avail themselves to appropriate its advantages.

I am, &c.,
A SAILOR'S WIDOW WITHOUT DAUGHTERS.

---

At a meeting of ladies held at Mrs. Skyring's, in Somerset House, on the 21st of February, 1850, for the consideration of a letter, which appeared in

the *Nautical Magazine* for February, 1850, signed "A Sailor's Widow, without Daughters."

It was resolved unanimously,

That the lamented death of Her late Majesty, the Queen Dowager, and the consequent withdrawal from the Benevolent Institutions of this country, (more especially those connected with the Naval Service,) of her powerful patronage and liberal support, will be severely felt by many Widows and Orphans of Naval Officers.

That to meet this exigency, as well as to furnish a memorial appropriate to the Widow of a Sailor King, it is expedient to raise a fund, to be called the "Adelaide Memorial Fund."

That the purpose of this fund be, to provide for the Orphan Daughters of Naval and Marine Officers the means of obtaining a suitable education, and of establishing themselves in such positions in life as may enable them to secure a respectable maintenance.

That this aid be extended, according to the comparative necessities of the applicants, either by special grants to meet special circumstances, or by annual grants to be continued so long as the recipients may need assistance; but in all cases to cease on marriage.

That the eminent virtues of the late Queen Adelaide, and the affectionate remembrance in which she is held by all classes, will commend this "Memorial" to general attention, and that it is therefore expedient that a public subscription be opened, and that *all* persons be invited to contribute.

That collecting-books and cards be issued, under the direction of a committee, and that the Navy-Agents and Bankers be solicited to receive the amount of the contributions so raised.

That Thomas Stilwell, Esq., be requested to become the Treasurer of the Fund.

That should the amount collected, unhappily prove insufficient for this object, it be given to the "Royal Naval Female School," to form a Fund for the gratuitous education of one or more pupils.

That the patronage of benevolent and influential persons be solicited, and that a committee be formed to carry out these designs."

S. L. Skyring. } *Hon. Secs. pro tem.*
S. C. Miles. }

On the 4th April next, at 2 o'clock, a Fourth Meeting will be held at Mrs. Skyring's, and the attendance of Ladies disposed to aid this cause is earnestly invited.

Adml. Sir E. Codrington, KCB., GCMG.
Adml. Sir W. H. Gage, G.C.H.
Adml. the Hon. Sir T. R. Capel, K.C.B.
Adml. Sir C. Adam, K.C.B.
Adml. Sir C. Ogle, Bart.
Rear Adml. Sir F. Beaufort, K.C.B.
Com.-Supt. Rt. Hon. Lord J. Hay, C.B.

Capt. Sir B. W. Walker, K.C.B.
Capt. Sir S. Brown, K.H.
Capt. Vincent, K.H.
Capt. H. Austin, C.B.
Capt. Dickinson, R.N.
Capt. Varlo, R.M.
Sir J. Liddell, Knt. M.D.

The Countess of Hardwicke.
" Hon. Lady Blackwood.
" Hon. Lady Grey.
" Lady John Hay.
" Lady Capel.
" Lady Thornborough.
" Lady Hillyer.
" Lady Lawford.

The Lady Beaufort.
" Lady Parry.
" Lady Walker.
" Lady Brown.
Mrs. Adml. Walpole Brown.
Mrs. Basil Hall.
The Misses Codrington.

Have expressed their approbation of the plan, and intention to co-operate. The Earl and Countess Howe, have also signified their intention to support the "Adelaide Memorial Fund."

## Examination of Masters and Mates.

A List of the Masters and Mates in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 31st of January last.

### Masters.

Those marked *m* served last as Mates.

| Names. | Class. | Date of Birth | Present or last Service. | No. of Register Ticket. | Where Examined | When. |
|---|---|---|---|---|---|---|
| Brodrick, C, C. | 2nd | 1817 | Ulverstone, 354 tons ..... | ..... | Hull | Jan. 3rd |
| Bartley, C. .... | 1st | 1827 | Grafton, 327 tons .....*m* | 232385 | S. Shields | — — |
| Welch, J. ..... | 2nd | 1825 | Royal Bride, 199 tons....*m* | 148742 | Dundee | — 4th |
| Branthwaite, W. | 1st | 1816 | Gunga, 277 tons ..... | ..... | Liverpool | — 5th |
| Anderson, H. .. | 1st | 1809 | Gambia, 557 tons ..... | ..... | — | — — |
| Kirk. J. ..... | 2nd | 1823 | Petrel, 125 tons .....*m* | 388086 | Glasgow | — — |
| Dell, G. H. .... | 2nd | 1814 | D. of Manchester, 369 tn *m* | ..... | London | — 7th |
| Walker, J. .... | 2nd | 1821 | Dee, 1900 tons .....*m* | 252525 | — | — — |
| Young, C. A. W. | 2nd | 1813 | Sir Robert Sale, 741 tons .. | 27152 | — | — — |
| Peat, J. T. .... | 3rd | 1825 | Marmion, 388 tons ..... | 22204 | — | — — |
| Moon, E. H..... | 2nd | 1827 | Spermaceti, 412 tons ....*m* | 007105 | Plymouth | — 8th |
| Wilson, J..... | 1st | 1825 | Janes, 210 tons..... | ..... | Leith | — — |
| Riddock, W..... | 1st | 1824 | Joanna, 555 tons ..... | 43705 | — | — — |
| Robertson, J. .. | 2nd | 1828 | Copse, 276 tons..... .*m* | 190213 | — | — — |
| M'Carthy, C. .. | 2nd | 1815 | Gloucester, 187 tons ....*m* | 1515 | S. Shields | — — |
| Elliott, G. ..... | 2nd | 1812 | Elizabeth, 248 tons..... | 104025 | — | — — |
| Hoare, D. J..... | 2nd | 1812 | King William, 405 tons . .. | ... .. | London | — 10th |
| M'Millan, H..... | 3rd | 1822 | Quintin Leith, 643 tons.... | 150411 | — | — — |
| Bartlett, T. .... | 3rd | 1802 | Jane, 500 tons .....*m* | 329110 | — | — — |
| Thompson, J.M. | 1st | 1823 | Medora, 231 tons .....*m* | 119279 | S. Shields | — — |
| Wallace, J. .... | 3rd | 1812 | Gloucester, 187 tons ....*m* | 21080 | — | — — |
| Ord, J. ..... | 1st | 1811 | Lord Dalhousie, 912 tons.. | ..... | Liverpool | — 11th |
| Dixon, R. A. W. | 2nd | 1811 | Lilla, 255 tons ..... | 563 | — | — — |
| Coveney, W. .. | 2nd | 1827 | Robert Watson, 380 tons *m* | 121830 | Newcastle | — — |
| Baillie, J. H. .. | 1st | 1814 | Rainbow, 547 tons ..... | ..... | London | — 14th |
| Powell, C..... | 2nd | 1827 | Gulterus, 333 tons .....*m* | 32045 | — | — — |
| Baxter, C..... | 2nd | 1818 | Lord Dalhousie, 912 tons *m* | 405841 | — | — — |
| Gosket, Y..... | 3rd | 1817 | Northumberland, 252 tons | 164471 | S. Shields | — — |
| Cordingley, H... | 2nd | 1821 | Endymion, 342 tons ..... | ..... | Hull | — — |
| Garrett, F. E. .. | 2nd | 1824 | Sir R. Sale, 741 tons ....*m* | 95583 | London | — 17th |
| Henniker, J.... | 3rd | 1825 | Malabar, 800 tons .....*m* | 31651 | — | — — |
| Nisbet, E. P. .. | 2nd | 1810 | Agincourt, 1050 tons..... | ..... | — | — — |
| Irvine, C. T..... | 3rd | 1810 | Lady Kath. Barham, 320 t. | ..... | — | — — |
| Dixon, I. ..... | 2nd | 1811 | Tynwald, 375 tons ..... | 135948 | Liverpool | — 18th |
| Cragie, J..... | 1st | 1821 | Janet, 238 tons..... | ..... | Leith | — 19th |
| Hoodless, G..... | 2nd | 1809 | William Dawson, 481 tons | 14466 | — | — — |
| Martin, A. L. .. | 2nd | 1826 | Protector, 375 tons.....*m* | 273683 | London | — 21st |
| Partridge, E. N. | 2nd | 1819 | Jordeson, 280 tons ..... | 1134 | — | — — |
| Spong, E. N..... | 2nd | 1818 | Orient, 700 tons .....*m* | 346811 | — | — — |
| Taylor, A..... | 1st | 1819 | Susan, 390 tons..... | ..... | Glasgow | — 22nd |
| Melville, A. .... | 1st | 1801 | Hebrides, 646 tons ..... .. | ..... | — | — 24th |
| Tremayne, B. W. | 3rd | 1822 | Kate, 59 tons.....*m* | 200788 | London | — — |
| Lamprell, J. C. | 2nd | 1820 | Oriental, 567 tons.....*m* | 324283 | — | — — |
| Goss, J. .... | 2nd | 1805 | Candahar, 642 tons..... | ..... | — | — — |
| Wallace, J. .... | 2nd | 1827 | Harriet, 270 tons .....*m* | 423706 | Dundee | — — |
| Robertson, J. .. | 1st | 1816 | Edmond, 849 tons ..... | ..... | Liverpool | — 25th |
| Davison, E. .... | 2nd | 1828 | Crown, 231 tons ..... | 183643 | Newcastle | — — |
| Lynn, J..... | 2nd | 1824 | Shepherd, 216 tons .....*m* | 113815 | S. Shields | — — |
| Cummings, R .. | 2nd | 1817 | Two Sisters, 308 tons....*m* | 331650 | — | — — |
| Logan, P. ..... | 2nd | 1827 | Choice, 98 tons .....*m* | 96254 | Dundee | — — |
| Reid, J. M. .... | 2nd | 1802 | Prince Rupert, 347 tons *m* | 6099 | London | — 28th |
| Mannock, W. B. | 2nd | 1816 | Prince Albert, 347 tons.. *m* | 25789 | — | — — |
| Robertson, N. .. | 2nd | 1812 | Tomatir, 427 tons .....*m* | ..... | Glasgow | — 29th |
| High, T ..... | 2nd | 1823 | Isabella, 303 tons .....*m* | 77519 | Dundee | — — |
| Brumwell, W... | 1st | 1814 | Cove, 353 tons .....*m* | 289321 | S. Shields | — 30th |
| Watson, W..... | 2nd | 1817 | Mary, 158 tons..... | 159991 | — | — — |
| Marshall, T..... | 2nd | 1822 | Welton, 264 tons..... | ..... | Hull | — 31st |

MATES.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Plummer, A. W. | 2nd | 1825 | Australia, 373 tons..... | 23587 | London | Jan | 7th |
| Wells, W..... | 3rd | 1794 | Asia, 455 tons ..... | 10720 | —— | — | 14th |
| Hole, A..... | 1st | 1826 | Menzies, 448 tons ..... | 185331 | Liverpool | — | 18th |
| Clark, C. G.... | 2nd | 1828 | Lady Valiant, 726 tons .... | 19159 | London | — | 24th |
| Wilcox, H. .... | 2nd | 1821 | Rainbow, 547 tons ..... | 257165 | —— | — | — |
| Clark, W..... | 2nd | 1828 | William Clark, 940 tons .. | 33853 | —— | — | 28th |
| Harris, G. B. .. | 3rd | 1826 | Gwalior, 404 tons ..... | 33593 | —— | — | — |

In laying before our readers another list of the Masters and Mates who have voluntarily passed an examination, and obtained certificates of qualification under the regulations issued by the Board of Trade, we avail ourselves of the present occasion, to offer a few remarks upon the working of the voluntary system, as well as on the compulsory measure at length determined upon by the government. The lists which we have from time to time published, have not only shewn that in the Merchant Service there are a great many active and intelligent officers, (considering that it comprises upwards of 30,000 vessels), but that those who have proved their qualifications, and who have boldly grappled with the system, an acquiescence in which or otherwise was left optional with them, have shewn their wisdom and foresight, inasmuch as it was scarcely possible with the long contemplated abandonment of the Navigation Laws, that a continuance of the voluntary system would be permitted.

That this change, which it was evidently intended by the present government should sooner or later be brought about, was almost rendered certain, it is only necessary carefully to consider the questions, bearing upon the subject, which were put to the witnesses examined by the select committees of the House of Commons on the Navigation Laws. The fact, too, of it having been long ago determined by government, to require the employment of qualified masters only in vessels hired as transports, or for other purposes, not only *fore shadowed* the coming event, but made it equally imperative both upon ship-owners and their masters to fall into the system, notwithstanding the apparent disinclination of the former, to admit the expediency of making any changes. It is quite extraordinary to see, as we do daily, with what tenacity certain ship-owners, men too of wealth, and considerable intelligence and enterprise, cling to "things as they are," and how much they damage their own reputation by opposing every measure of government, and without suggesting, in the fair spirit of the question, anything in the way of amelioration whatever. Far be it from us to complain of the decided, and almost dogged opposition of the Ship-Owners' Society. It is only to be regretted that the ship-owners are not more united as a body, and do not give this Society (which is possessed of very scanty funds) more cordial and efficient support. Such a society is calculated by its carefully watching over the interests of the ship-owners, to do infinite good both to individuals and to the public. The consequence however, of neglect is, that the proceedings of the committee are in a great measure governed and controlled by a few influential members, and hence it is that this Society has failed upon the present occasion of a change in the Navigation Laws to secure for itself the respect and attention to which it might otherwise have been entitled.

Adverting, however, again to the Voluntary system of Examination of Masters and Mates, we have some satisfaction in reviewing the several lists which have been published, in witnessing the progress it has steadily continued to make. We see too that our observations upon former occasions have had a good effect. There was much justifiable ground in the outset,

for the unwillingness of the Masters of ships, who had already established a high reputation, to subject themselves to the unknown ordeal of a "Board of Examiners," whose own qualifications might, and we know did, in some instances, justly require to be tested by some means or other, so as to inspire that confidence in the candidates which was, and is still, so necessary to ensure strict and impartial justice. Long ago we suggested the expediency of giving preference to the Trinity-House in London. This advice it is now evident has been successfully followed. The highly honourable members composing that corporation, being free from local prejudice or partialities, could have no motive whatever for acting otherwise than liberally and fairly in testing the qualifications of candidates. Experience too has shown those members that they have on the whole had good materials to deal with, and there can be no doubt that in fairly considering the just claims of the candidates, they have scorned to regard mere peccadilloes, but have been guided by the wise maxim:

> "Be to their faults a little blind,
> And to their merits ever kind."

We have much pleasure in thus recording our sentiments as regards the conduct of a body of gentlemen who stand deservedly high in the estimation of the mercantile community, and whose public duties and the manner in which they are discharged, give them a just claim to the good opinion of the public. Their duties will be unquestionably greatly increased if the "Mercantile Marine Bill" shall become the Law of the Land.

The Bill so designated, is of a very comprehensive nature, and comprises 132 sections. It not only provides for the examination of masters and mates, but it contains important provisions for the hiring of seamen, and their treatment, and especially that proper "berths" for them, shall be set out in every ship; and it also contemplates a better system for the management of the "Merchant Seamen's Fund" and for extending those benevolent institutions known as "Sailor's Homes", the first of which was commenced by the much respected Father of Mr. Richard Green, the shipbuilder at Blackwall, who, we believe, built the chapel now attached to it. It would extend this article too much, were we to go further into details, but we may observe that it is proposed to give extensive powers to the officers of the customs "Consular officers" and "Shipping masters," in all matters in which duties are imposed upon them, and that some heavy penalties, to be levied both upon shipowners, and masters, have been likewise introduced into the bill.

We are desirous, however, of confining the few additional observations we have to make, to the provisions relating to the examination of masters and mates. It is proposed that "so much of the Act as relates to the compulsory prodution of certificates of masters and mates" shall, "with respect to such ships as are in the United Kingdom on the 1st of January 1851, and to the owners, masters, mates, and crews thereof, come into operation on that day". And with respect to ships, not in the United Kingdom, as soon after their first subsequent arrival as "preparations are commenced for a further voyage." The general superintendence is given to the Board of Trade.

They are to have power to nominate two persons who have served—years in the British merchant service, to assist them in the execution of the Act, and they are to be allowed salaries. In section 16, power is given to the Board to nominate Examiners, and to pay them such remuneration as they may deem fit. Those masters and mates who do not come within the exceptions now wisely provided for, as a bare act of justice to old and meritorious captains in the merchant service, will upon proving their qualifications, be

furnished with "certificates of competency", either for the first, second, or third class, as the case may be. But persons who have before the 1st of January 1851, served as masters or mates in the British Merchant Service, or who have attained, or may hereafter attain the rank of Lieutenant, Master, Passed Mate, or Second Master, or any higher rank in the Naval Service of her Majesty, or of the East India Company, shall be entitled to "Certificates of Service".

We augur from this, and we hope only fairly, that those masters of ships, who, from their long service, experience, conduct, skill, and general character, have proved themseves, not only good officers, but trustworthy, and intelligent representatives of the interests of their owners, will not unnecessarily be obliged to go to school again to enable them to solve some problem in Euclid, which might be put to them in the capricious exercise of the powers vested in the Examiners, and which powers should be limited to ascertaining the skill of a man in so much navigation and nautical astronomy, as is required for the safety of a ship, and the proper performance of a voyage.

---

### Torres Straits —*Interesting Incidents.*

The following interesting communication, from the able and accomplished author of the "Surveying Voyage of the *Fly*." comes very *apropos*. The "useless pest-house" of Port Essington is by this time, we trust, "blotted from the face of the earth." Captain Keppel sailed from Batavia to remove the last of the unfortunates who were stationed there. The story, related with so much affected manly feeling by Mr. Jukes's correspondent, speaks strongly in favour of the establishment of a post at Cape York, which will moreover be necessary as soon as steam navigation from Singapore to Sydney is fairly commenced. It is to be hoped that no undue procrastination will be allowed to take place in that important and indispensable extension of our ocean line of postal communication:

Sir.—I have just received a letter from my friend Mr. M. Gillivray, naturalist, of H.M. ship *Rattlesnake*, from which I send you some extracts, both as containing a story interesting in itself, and as showing the great need of a small post at Cape York, in Torres Straits. The establishment of this post I have long ago urged as necessary, both in your columns and in the "Voyage of the *Fly*." It is a small matter, and one likely to be overlooked in the hurry of affairs at home; I think it therefore the more incumbent on those acquainted with the localities and the circustances of the case to bring it as opportunity serves before the public.

*Rattlesnake, Cape York, Oct. 16th*, 1849.

* * * After leaving Cape York last year we put into Port Essington, and found the settlement in a still more wretched state than I had expected. When will that useless pest house be blotted from off the face of the earth? At this anchorage we were baked and roasted as usual, without a breath of air for days together. . . . . 8h. P.M.—I resume my letter, but not the thread of my discourse, for I have to tell you of the most eventful occurrence of the cruize. . . . News came that a white woman was alongside, brought off from the shore. Had I been told that the blacks had opened fire on us from a mortar battery on Albany Island, or that one of them had brought off a correct solution of the quadrature of the circle made out in the native language, I would as soon have believed it—yet it is

true. The woman had been wrecked three or four years ago in Torres Straits, when, with her husband, (the skipper of the craft) all but herself were drowned; but one of the blacks in a canoe which was out turtling, approaching the wreck carried her out through the surf, supporting her by one arm and swimming with the other. She happened to be the only survivor. They took her to an island, which we conjectured to be one of the Prince of Wales's group. She lived several years with them, and was kindly treated by the men, less so by the women; occasionally taken about during their visits to Cape York, but carefully prevented from having communication with any of the numerous vessels which are constantly passing; she knew of our visit last year to Cape York; and a few days ago news came that the same "large war canoe of the white men," with the small one, had arrived. She prevailed on her friends to take her across to the main, which they did, accompanying her in four large canoes. She had great difficulty in inducing them to do so, as they supposed she wished to escape; but she told them that after seeing her white countrymen and shaking hands with them she would return. Of course she won't.

"I very much admired her answer when Captain Stanley asked her whether, of her own free will (for he would do nothing by compulsion) she wished to return to Sydney, where her parents were when she left; she said, 'I am a Christian',—the remainder of the sentence she could not express, her feelings choked her, and her tongue refused its office. She had forgotten much of her own language, and had frequent recourse to that of the blacks when wishing to explain herself. Poor woman: she is not more than 20 (19 to 20 she says); and, though not pretty, has a soft, feminine, and very pleasing expression; and though living with naked savages for several years, she has not lost the natural feelings of womanly modesty, and appeared to feel acutely her situation, dressed only in a shirt, in the midst of a crowd of her own countrymen. It is almost unnecessary to mention that every kindness and considerate attention had been shown her, and that she goes with us to Sydney. She told the three blacks, (one her rescuer from drowning, another an old friend of ours last year,) that of her own free will she wished to leave them. They were liberally rewarded with axes, knives, &c., and are now sleeping on board. By-the-bye, I forgot to mention, that she states, that on only one occasion was any improper liberty attempted by the men,—she was fortunately saved by a friend, (a friend of ours,) who soundly thrashed the intending ravisher, an old man well known to us. What a rich treat I have in prospective, touching the language, manners, and customs of the people she has been living with. She talks their language like one of themselves. She will tell us all about Kennedy's death, the perpetrators are a savage tribe constantly at war with the Cape York one. I have now no time to tell you about our cruize. . . I may as well mention, however, that we reached the Louisiade in due time. The charts give a very incorrect idea of that archipelago and the S.E. of New Guinea. * * * * Yankee whaler wrecked on Osprey reef this year; crew reached Booby Island, and were saved by provisions and water of that depot."

Respecting the last incident I may mention that Booby Island is a small islet on the western side of Torres Straits, where men-of-war or other passing vessels occasionally leave a small stock of provisions as a resource for some of the crews of the many wrecks that annually occur in the neighbourhood. I need hardly point out the scanty and precarious nature of such a resource, and how dire must be the disappointment, and dreadful the sufferings of a wrecked crew who found the provisions exhausted by a previous set of unfortunates.

In conclusion I would only state that the humane and very admirable conduct of the black "savages," related in the above narrative of Mr. M. Gillivray's, only confirms the favourable opinion I myself conceived of them, in spite of acts of occasional atrocity, of which some of them have been guilty.

Yours, &c.,
J Beete Jukes.

*Penn Fields, Wolverhampton, Feb.* 21*st.*

---

How to get to California, and how to get on there.

Perhaps it may be interesting to your readers to learn something of the mode of getting to California. If an Englishman with such intent should arrive in New York he will find that there are three different lines of steamers constantly plying thence to Chagres. They are all of the first class, and some of them, such as the *Ohio* and *Georgia*, are of 2,000 tons burden. Besides these two belonging to the government mail line, there are the *Empire City* and the *Crescent City* belonging to Howard's line, and the *Cherokee* and *Philadelphia* of Howland and Aspinwall's line. The lowest steerage fare is 50 dols., and cabin 100 dols. The accommodations are excellent, and the vessels are swift and safe. A cabin passenger is allowed to take eight cubic feet of luggage free of charge, being equivalent to one-fifth of a ton, and a steerage passenger six feet. When the steamer arrives off Chagres, she anchors off the bar, or lies in Navy Bay, several miles from the mouth of the river, and the passengers land in the ship's boats or canoes of the natives. This landing is at the expense of the ship. On their arrival Chagres is found by the passengers to be a miserable village of huts, filled with half clad negroes, where the whites cannot live and maintain their health, and the night air for all classes is pestiferous and deadly. Of course all seek to hurry away. Some hire canoes, and others go on board a little steamer called the *Herran*, which is miserably inefficient, and proceed up the river as far as they can in her, performing the rest of the distance by water in canoes. The price of the conveyance depends upon the number of passengers. Ordinarily, a person may go up the river with a trunk or portmanteau for about 10 dols.; oftentimes 25 dols. have been paid.

The voyage on the river terminates in the dry season at Gorgona, and in the wet at Cruces. It is now the dry season, and the lower road is preferred, as Gorgona is some miles below Cruces. At either of these places mules or mustangs may be obtained at from 10 to 20 dols. each, to transport passengers or luggage. A mule load is about 250 lbs. It usually occupies about two days and a half to cross from Chagres to Panama. Within the last three months several very comfortable inns have been built at Chagres, Cruces, and Panama; and there is not so much expense in the transit as formerly. Panama is changing its appearance very much. The Americans have been buying and leasing property for various purposes; and the old inhabitants, who for years have been quite poor, now deem themselves rich. The rents of dilapidated stores, that a year since were not worth 50 dol. per annum, have gone up to 500 dols. It is now believed that the seat of government will be removed to Panama, which will give it much additional importance. Large improvements are going on at the Island of Taboga, opposite

the town, where the steamers lie. A steam ferry to the island is about to be established, and American commercial houses are beginning business there on a large scale.

From Panama to San Francisco the voyage is made either in Howland and Aspinall's main line, or in the opposite lines of Law and of Howland. Each of the latter have sent round steamers to the Pacific. A cabin passage in these costs 300 dols., and a steerage passage 150 dols. The voyage occupies about 20 days. Freight is as yet excessively dear, being about 150 dols. per ton of 40 cubic feet. It is not to be denied that a trip to California is no joke. After an adventurer arrives there, unless he has a great deal of money, or its equivalent in self denial, and an iron constitution, he is doomed to great suffering. A couple of weeks' residence at San Francisco is so expensive that it will eat up many hundred dollars. The journey to the mines is tedious and difficult. After he arrives at them he finds the ground has been very thoroughly explored, and all the best places prospected and occupied. If he starts off for any new spot, he is in danger of starving to death. What he can gather he has to expend for food at very exorbitant prices, and now and then a hug from a grisly bear, or an arrow from some unseen bow, concludes the journey. In the wet diggings, if he has strength to bear the labour of digging, stooping, and washing, he is obliged to be constantly in the water. In the dry, he is exposed to a hot sun, or to the most piercing cold. Very many give up in despair, after the first attempt, and make their way back as soon as possible to the settlements, often doomed to certain death when they arrive, by the attacks of dysentery, the pestilence of the climate and its labours.

And yet there are thousands who endure all this and more, and acquire fortunes in a very short time. The gold is inexhaustible, but human life is precarious. Illustrative of this, let me relate an anecdote just this moment told me by a merchant returned from Sacramentos City. Not long since a party of Philadelphians went to work on a place near the Yuba river, and after working for some weeks, settled up their accounts, and were losing fifteen dollars each. They left in disgust, and sold out their right to another party at a little distance, who were getting out a thousand dollars per day. These last, after the Philadelphians had left, repaired to their new purchase, and by digging only one foot deeper, struck a vein equally as profitable as the other.

One of the California representatives has brought with him specimens of the quartz rock. They are valuable beyond belief. One small lump sent to the Mint in Philadelphia has been assayed, and found worth 800 dols. We have as yet had only the debris. The rocks themselves have scarcely been broken up by the miners.—*Daily News, March 6th.*

---

### The Rival Routes across the Channel.

The importance of this question, to which we called attention on the 2nd inst., was exemplified in the motion of Mr. Mackinnon for a Select Committee of the House of Commons, to enquire into the subject. It will be seen by the debate, which we published last week, that in our previous original remarks we anticipated the brief of Mr. Mackinnon by a complete answer to all the averments contained therein; and how the Admiralty, so well informed on the subject, as they showed themselves to be by Mr. Cowper's speech, can suffer the public time to be wasted by a useless Committee we are at a

loss to imagine. In fact, the question has no business in the House of Commons; as Sir G. Clerk remarked, it is a matter which might well be left to the Admiralty and the Post Office. If the House of Commons is to interfere with executive Boards in this manner, the sooner we get rid of the expense of these Boards the better; for it appears they are of no use, except as mere slaves of a Select Committee, and their opinions have no weight against a tricky motion. The Committee, however, has been granted, and it now remains for the Admiralty to show, by the evidence of their experienced Officers, how the public have been imposed upon by the pretended concern for their interests in holding out to them the bait of securing the delivery of the mails between London and Paris some hours earlier *via* Folkestone and Boulogne, than by Dover and Calais.

But it should be understood that this House of Commons' Committee has been got up by interested parties to serve the interests of the South-Eastern and the Boulogne and Amiens Railway Companies. Folkestone is the property of the South-Eastern Railway; it is desirable, therefore, that this should be the place for the arrival and departure of the Channel mails. Eight steam boats, most of them lying idle, representing an unproductive capital of some £175,000 on which 5 per cent. is guaranteed by the railway, are the property of the South-Eastern shareholders: it is most desirable therefore that these boats should be employed in conveying the mails. Boulogne is the packet station of the South Eastern Railway, and the Directors are interested in and working with the Boulogne and Amiens Railway; consequently, it is much to be desired that Boulogne should be made out to be the best French port for the mails, and the Boulogne and Amiens Railway the best and shortest route to Paris.

Lastly, the promoters of the petitions in favour of Folkestone and Boulogne are Messrs. Carden and Whitehead, large stockbrokers in the city—large Shareholders in the Boulogne and Amiens Railway. One of those gentlemen, we believe, being part proprietor of the "leading journal" that has spoken out so warmly on behalf of Folkestone and Boulogne; the other being the Ex-Secretary of the South-Eastern Railway—moreover, it is whispered that the dowry of a certain French lady is extensively invested in the Boulogne and Amiens Railway—*ergo*, sundry parties would very much like to see the South-Eastern and Continental Steam Packet Company enter into a contract for conveying the mails to Boulogne at a cost of some £10,000 a year, and the Boulogne and Amiens Company to convey the mails on their railway. These are facts of which the public must not lose sight. If, as it is charged against the Royal Naval men, the Government Officers of the Packet Service are interested in keeping the conveyance of the mails under the pendant, and therefore ought not to be heard on the subject, how much stronger can the charge of personal and pecuniary interest be maintained against the speculative companies.

The matter, however, is now intrusted to a committee, who are bound to decide upon the advantages and eligibility of the rival routes without reference to individual interests. They have opened their proceedings this week, and have called before them the author of a pamphlet in favour of the Companies, and the Chairman of the South-Eastern Railway, who, of course, contend with the keenest business spirit for their own interests, and shortly we presume the Committee will have the benefit of the opinions of Mr. Walker, the Civil Engineer of the Dover works, Captain Bullock R.N., who surveyed the coasts on both sides of the Channel, Captain Baldock, R.N., the Superintendent of the Packet Service at Dover, and one or two of the Commanders of the packets. When taking the balance of evidence of these wit-

nesses, we are quite sure the decision of the Committee will be adverse to the wishes of the active and passive promoters of the petitions.

"1st. So far as the English railway is concerned, it must be considered that there is no difference in point of time in reaching Dover or Folkestone.

"2ndly. It is admitted that the sea route to Calais is shorter than from Dover to Boulogne.

"3rdly. It is admitted, on the other side, that the railway *via* Boulogne is above sixty miles shorter than *via* Calais.

"These three propositions being allowed, the question is, which is the most preferable port—Dover or Folkestone? Can there be two opinions on this point? A visit to Dover will at once show that the port has so improved of late years that vessels of light draught of water can enter the harbour an hour later after high water than at Folkestone, and in the course of this summer the engineers tell us that boats will be enabled to embark and land mails and passengers at the pier at dead low-water spring tides. It is folly, then, to imagine for one moment that the Government, after spending so much money on Dover, in making it a safe and convenient harbour, will abandon the port in favour of the fishing creek of Folkestone.

"With respect to the passage across, the public comfort must be taken into consideration as well as Dispatch, and if we know anything of the opinions of Channel passengers, our experience leads us to believe that they would rather pass two hours in a railway carriage, than half an hour knocking about in a 'short, cross, and nasty" sea. To passengers, therefore, the fifty-five minutes saved, on the average, by making for Calais, is an ample set off against the two hours lost in the railway from Calais to Amiens, as compared with the time occupied on the Boulogne and Amiens line. But, as we proved on the 2nd inst., the 65 minutes in favour of Boulogne and Amiens is still further reduced to the facilities which Calais affords in landing at the lowest spring tides, and in the proximity of the railway station to the quay; so that, taking the whole year round, and considering on the one hand the ineligibility of Folkestone at all times of the tide as compared with Dover, the dangerous approaches of Boulogne, the difficulties of entering the harbour, and the perilous delays incurred by landing from or embarking in the roads, together with the distance of the railway from the pier, as compared on all these points with Calais on the other hand, we do not hesitate to assert that the route *via* Dover and Calais is equal in respect of time occupied, as it is superior in point of uniform regularity and assured safety to the route *via* Folkestone and Boulogne.

"It seems to be generally understood that the Ostend mail will be given up by the English Government. If such be the case this fact will prove an additional argument in favour of Calais, so that one steamer may take across the French, Belgium and German mails. What extraordinary inducements, therefore, the South-Eastern Railway and the Steam Packet Company have to offer to tempt the Government to contract with them to carry the mails remain to be discovered. It is impossible that their heavy and expensive boats, consuming from 11 to 12 tons of coals in the passage to and from Folkestone and Boulogne, can do the work at the same price as the Government boats, consuming only seven tons of coals. There must be a losing account somewhere, which, most likely, if they secure the mails, the public will be called upon to make good, by-and-by, by paying higher fares."

The foregoing is a straight forward statement by the *United Service Gazette* of a very simple question; but we may add another important feature in favour of Calais. Who would not rather land in smooth water, at all times than do so from a boat in a heavy sea way, and have to cross a dangerous bar, at the

risk of the boat being overturned. We little expected that Folkestone would ever entertain pretensions for the Packet Station on this side, when we shewed the arguments in favour of Dover with Calais, in our last year's volume. Are these promoters in their sane minds, when they are trying to befool John Bull thus. Were they to gain their point, which we believe to be impossible, we should hear of their boats sticking on those nice shoals, the Varne and Ridge, which their track between Folkestone and Calais, must always cross, or which they must avoid, and make their water distance five miles greater than to Calais, an advantage fully explained by the *United Service Gazette.*

---

Soyer's Magic Stove.—That Mr. Soyer is a magician of a very important branch of animal economy all the world knows; at least that world which has the advantage of his book; but that he is no less wonderful in raising the very foundation on which his fame was built, that world has not yet the advantage of knowing, but will very soon be delighted with. There are many of our readers who well know the comforts of a well stocked canteen, in their pilgrimage by flood or field, and many have experienced the difficulty not only of obtaining fire, but also when obtained of using it in the most economical, and judicious manner, under the most trying circumstances of weather, and scarcity of fuel. To these we say, go and look at *Mr. Soyer's Magic Stove*, in which the science of the philosopher, and the art of the mechanic are combined in one of the most ingenious contrivances of this century of inventions. We assure them they will be well repaid for their trouble, and will deserve to linger on under their present difficulties if they do not avail themselves of its really magical qualities at Gardner's, in West Strand.

---

The Graving Docks at Sourabaya have at length been completed, on a scale sufficiently large to receive large steam-vessels. Several vessels belonging to the government have been repaired most effectually, and a tariff is about to be published, detailing the rates at which private vessels will be docked and repaired. The construction of these docks will be a great boon to the shipping in these seas, and soon repay government for the outlay and expenses incurred in their erection. It is currently reported, and very generally believed, that Governor-General Rochussen will shortly proceed home; illness, and some misunderstanding with the Hague authorities, is said to be the cause of his Excellency's intended departure, if so, it is highly probable the arrival of the next mail from Europe will determine the matter.—*26th Feb., Daily News.*

---

## Nautical Notices.

### Remarks on the Ports, Bays, and Anchorages, on the southern coast of Santo Dnmingo.

*British Consulate, Santo Domingo, Jan. 2nd*, 1850.

It having frequently occurred that masters of British vessels signed charter-parties at Saint Thomas, to sail with convenient speed to the Port of Santo Domingo, and there, and at other places along the southern coast, as more especially mentioned in the charter-party, to take in the whole or part of the cargo; and as many of the places, bays, or ports are full of dangers to the shipping, or entirely unfit for taking a cargo on board of vessels of a large draft, it becomes the duty of H.M's. Consul at Santo Domingo, to make generally known for the information of masters of British vessels, that all

ports, bays, or places of anchorage to the windward of the Island of Saona, or more especially between Punta Espada and Cape Raphael, are at all times dangerous, but more especially so during the period between the months of January and April.

The anchorage at Petit Trow is safe; but the passage through the reef to it, admits only vessels that draw no more than ten or ten feet and a half, but there is another passage with eighteen and twenty feet water, for vessels sailing from the anchorage to seaward, which in consequence of the prevailing winds, and being narrow, cannot be made use of for vessels bound for the anchorage of Petit Trow.

The bay or anchorage of Baurneo somewhat northward of Petit Trow, is dangerous in consequence of being quite open to the winds, and on a heavy swell setting in, the ship is obliged to anchor close to the land, as there are no soundings at a short distance from the shore.

The other ports, bays, and anchorages, on the south coast of Santo Domingo are without danger, but greatly subjected during the period between the months of July and October to heavy swells.

ROBERT SCHOMBURGH, *Consul.*

---

SHIP ROCK OF SANDA LIGHTHOUSE AT THE MOUTH OF THE FIRTH OF FORTH.

The commissioners of the Northern Lighthouses hereby give notice, that a lighthouse has been built upon the rock called "Ship of Sanda," off the Mull of Kintyre, in the county of Argyll, the light of which will be exhibited on the night of Monday, the 7th January, 1850, and every night thereafter, from sun-set till sun-rise.

The following is a specification of the lighthouse, and the appearance of the light, by Mr. Alan Stevenson, Engineer to the Commissioners:—

The lighthouse is in north lat. 55° 16′ 30″, and west long. 5° 34′ 55″.

By compass, the lighthouse bears from Pladda Light, W.b.S. $\frac{3}{4}$ W., distant eighteen miles; from Patterson's Rock Buoy, W.b.N., distant one and half mile; from Ailsa Craig, N.W.b.W. $\frac{1}{8}$ W., distant sixteen miles; from Corsewall Light, N.b.W. $\frac{1}{4}$ W., distant twenty-two miles; from the Maiden's Rocks Lights, N.E. $\frac{1}{4}$ N., distant twenty-one and half miles; from Fair Head, in the County Antrim, E.S.E. $\frac{1}{4}$ E., distant nineteen and quarter miles; from the most Northern Point of Rathlin Island, S.E.b.E. $\frac{1}{8}$ E., distant twenty one miles; and from the most Southern Point of the Mull of Kintyre, S E. $\frac{3}{4}$ E. distant six miles.

The Ship Rock of Sanda Light will be known to Mariners as a Fixed Red Light. It will be visible in a south-westerly direction from N.W. $\frac{1}{2}$ W., round to S.E.b.E. $\frac{1}{2}$ E. The lantern is elevated 165 feet above the level of the sea; but the light, being *red*, will not be seen at a greater distance than about *five* leagues, and at lesser distances according to the state of the atmosphere.

The commissioners hereby further give notice, that by virtue of a warrant from the Queen in Council, dated 1st March 1849, the following tolls will be levied in respect to this light, viz:—

For every vessel belonging to the United Kingdom of Great Britain and Ireland, (the same not belonging to Her Majesty, her heirs and successors, or being navigated wholly in ballast,) and for every Foreign vessel which, by any Act of Parliament, Order in Council, Convention, or Treaty shall be privileged to enter the ports of the said United Kingdom, upon paying the same duties of tonnage as are paid by British vessels (the same not being vessels navigated wholly in ballast) which shall pass the said lighthouse of Sanda or derive benefit thereby, the toll of one *farthing* per ton of the burden of every such vessel, for each time of passing the said lighthouse,

or deriving benefit thereby, on a coasting voyage, and double the said toll for passing or deriving benefit on an oversea voyage; and double the said respective tolls for every Foreign vessel not so privileged.

By order of the Board,

(Signed) ALEX. CUNINGHAM, Secretary.

Office of Lighthouse Board, Edinburgh, Dec. 7, 1849.

---

### THE MERCHANT MARINE.

SIR.—With reference to the bill now before Parliament for the better education of merchant captains, the following summary of one of my voyages will be a further proof, (if any were required,) that competent masters and officers only should be engaged for our mercantile marine.

In 1819, I took a ship from Calcutta for Liverpool; after I had paid my passage-money, I learnt that the master had never been before commander of any vessel, that he had sailed from England as chief mate, and the commander dying on the outward voyage the owners or consignees at Calcutta appointed him commander. Before leaving Calcutta I noticed to one or other of those gentlemen that the ship was very deep in the water. He replied, with much *sangfroid*, "Oh, never mind we (the owners) are well insured; if she goes down it is of no consequence." Before we had been long at sea, in the Bay of Bengal, —we experienced a complete hurricane, all sails being set. The master, weeping and stamping his feet on the deck in a dancing attitude, and scratching his head with both his hands, cried out, "Oh,——, we are gone! we are gone!" The second officer, however, fortunately got the ship before the wind, and we escaped with slight damages into Coringa, whence, after a detention of seventeen days, we sailed, as we all hoped, for Liverpool. On nearing the Isle of France we sprung a leak, and bore up for the island, where we were detained for six weeks. Here we took on board the late Sir Robert Sale (then Major) his wife, and family. For some excuse we put into the Cape. On approaching Table Bay, Master Humble (who by-the-by was but 24 or 25 years old,) was below taking his grog, when to our astonishment and dismay, we pounced upon the rocks at Green Point at 10h. P.M., a dark and blowing night. We narrowly escaped with our lives, without a change of clothes, some of our crew and the master of the Conway sloop of war being lost in their heroic endeavours to save us. I think it high time that we should have efficient officers in our mercantile marine. Although not a naval man, I have been much at sea, and have come to the conclusion that 15 out of 20 accidents that occur to merchant vessels are occasioned through the carelessness or ignorance of the masters and officers.

*London, March 6th.—Daily News.* AMPHIBIOUS.

---

### HOW THINGS ARE DONE IN NEW YORK.

A singular spectacle was presented to the eye of the public in this city last week. Three large steamers were launched at once from a single dockyard. One of more than 3,000 tons burthen, belongs to the New York and Liverpool line. Another of somewhat less dimensions, is intended for the coast trade; and a third is designed for the navigation of the Bay of San Francisco and the Sacramento River. The latter left the ways fully equipped for sea, her engine was on board, her steam was up, and as soon as she was fairly afloat she paddled off at a very high velocity, recognising her "native element," as some have it, with the apparent instinct of a seagull. Not the smallest derangement of the machinery was observed, and she was even then ready for her departure. She sails in a few days for the Pacific. I believe this is the first attempt of the kind ever made, and it was perfectly successful. Our ship-yards, like those of England, show an increased

activity. Steamers of every size, and packet-ships of enormous burthen, are being everywhere built.

There seems to be a wondrous impetus given to our commerce, and it will not be long before we shall have a large fleet of merchantmen in the Northern Pacific seeking new outlets for our produce. There are hundreds of islands in that ocean we have never yet visited for the purpose of trade that will soon recognise our flag. The discovery of the mineral wealth of California has already led to an astonishing increase in our manufactuers of a certain description. Prepared food, blankets, woollen cloths, boots, hats, and shoes, gold and silver ware, paper, iron safes or boxes to hold papers and money, scales for weighing gold, hammers, nails and axes are sent out in large quantities.

A new market is also found there for our flour, beef and pork, dried apples and peaches; cider and ale are also sent off by the ship load. The emigration thence continues to be large, and supplies will be wanted for years to come to an almost unlimited extent. The discovery of gold in the quartz rock has given a new impetus to the existing impulses, and we look for the arrival of our richly laden steamers from Chagres with an interest that throws our Europeans connexions into the shade.

---

## New Books.

Arthur Montagu; *or, An only Son at Sea: by a Flag Officer.*—3 vols. Saunders and Ottley.

The Flag Officer has been reading up! If we might judge from the extent of quotations historical and peculiarly classical, in his three volumes, he is as well acquainted with ancient and modern authors, as he ever was with the routine of a seaman's duty or the articles of war, including even Admiralty circulars. But although skilled in all this as well as his own nautical tactics, he has not the tact for constructing a story, and signally fails in connecting the whole.

"The witching thread that lures the reader on,"

He has not yet found, although he supplies him abundance of classic lore when on classic ground, besides insights to the retirement of the gun-room and cock-pit (not to our taste,) that a Marryat would have dealt with at the expense of disturbing the seriousness of his readers.

In fact the Flag Officer is too serious, too classical, too abrupt, but he has succeeded in making his work *useful* by the many nautically historical facts, with which it abounds. As Flag Officers seem to be taking up the pen now-adays from want of employment for the sword, we may remark of the two last nautical novels, that the author of the "Petrel" (that interesting tale of real life) be he flag officer or not, is in no risk of being mistaken for the learned flag officer of "Arthur Montague", whose patron forgets to introduce him to his first captain, and although "an only son" cares so little for him, that the reader forgets there is such a person concerned in the story.

---

We perceive that Mr. Biddlecombe, R.N., the talented master of Her Majesty's Yacht, Victoria and Albert, has been busy in producing a little work on the Navigation of the English Channel. Such a work cannot but be replete with useful information, and evinces on the part of its author a determination to be useful.

---

Portraits *of the rival frigates Raleigh and Leander:* by Mr. Dutton.

Mr. Dutton has published two handsome portraits in lithograph of these two Frigates, in which he has displayed first-rate taste as a Marine Artist. They are both under canvas, and in all detail of gear, &c., as well as artistical skill Mr. Dutton has succeeded admirably.

HONDURAS MILITIA.—The Militia Corps of this settlement had the honourable and distinguished title of the "Prince Regent's Royal Honduras Militia" conferred on them in consequence of, and as a reward for, their gallant and successful defence of the settlement when invaded by an overwhelming Spanish force, on the 10th of September, 1798. For two days the Spanish Flotilla vainly endeavoured to effect a landing; but the Militia and settlers, under the command of the brave Col. Barrow, repulsed the enemy on all points, and finally obliged him to retire in inglorious haste and disgraceful confusion. The Honduras Militia is composed of Carib Indians, free blacks, and settlers; and a finer *materiel* for a Colonial contingent of Irregular Troops, or Independent Companies, cannot be found in the Tropics. Stout, hardy, rough and ready from habit and occupation, they are inured to all climes, and case-hardened against every vicissitude of weather. For the greater portion of the year they have no shelter, save the "canopy of heaven," or an open shingle hut—a wigwam made of the branches of trees, covered with palmetto or cahoon leaves; their food simple, supplying themselves chiefly with game, fish, or wild animals—their clothing light and scanty. The seasoned mahogany cutters are reckless of storm and rain, swamp and miasma, and where the European would perish they revel in rude health. Clearing the forest-paths for trucking the timber, felling the largest trees—wielding constantly the heavy axe, in squaring the tough mahogany logs, expands their chests, braces their muscles, producing an iron frame, a pliancy of limb, an activity of motion, and a patient endurance of labour, fatigue, and privation, seldom, if ever, excelled among any other race of men.

---

PIRATES NEAR SCIO AND SMYRNA.—By accounts from Tchesme of 23rd of Feb., two piratical barks carrying 75, men each, had been lately seen on the coast of Kara-Bourna (Cape Black,) opposite the Spalmadari Islands, they had already plundered several cargoes.—*Times, March 15th*, 1850.

"The *Smyrna Journal* of the 23rd of May, reports that the Turkish Grand Admiral, Suleiman Pasha, has taken energetic steps to put an end to the frequent piracies committed in those seas, and for that purpose has given orders that a large steamer at Rhodes shall be directed to that object, and several smaller vessels are preparing to leave the Turkish Arsenals with the same intent."

---

## NEW CHARTS.

*Charts Published and Corrected by the Admiralty in March* 1850, *and sold by R. B. Bate*, 21, *Poultry.*

| | s. | d. |
|---|---|---|
| THAMES RIVER, sheet 1, *Capt. F. Bullock, R.N.*, 1849. . . . | 3 | 0 |
| KIRKCUDBRIGHT BAY, Scotland, *Capt. C. G. Robinson*, 1838. . . | 1 | 6 |
| DIRECTIONS FOR THE N.E., N., AND N.W. COASTS OF IRELAND, *Commanders Mudge and Frazer, R.N.*, 1850, second edition. . . . . | 2 | 0 |
| HAE-TAN Strait, China, *Captains Kellett and Collinson, R.N.*, 1843. . | 3 | 0 |
| SAM-SAH BAY, " *Capt. Collinson, R.N.*, 1846. . . . . | 1 | 6 |
| NAMQUAN HARBOUR, " *Ditto* 1846. . . . . | 1 | 0 |
| SHIEPOO HARBOUR, " *Ditto* 1846. . . . . | 1 | 6 |
| BOTANY BAY, Australia, *Capt. O. Stanley, R.N.*, 1848. . . . | 0 | 6 |
| SHOURAKA GULF, New Zealand, corrected by *Capt. J. L. Stokes*, 1849. | 2 | 0 |
| ENTRANCES TO AUCKLAND, Do., *Ditto* 1848. | 1 | 0 |
| NEW PLYMOUTH, Do., *Ditto* 1849. | 1 | 0 |
| CARIBOU HARBOUR, Gulf of St. Lawrence, *Capt. H. W. Bayfield, R.N.*, 1843. | 1 | 6 |
| PICTOU HARBOUR, Ditto *Ditto.* 1843. | 1 | 6 |

EDWARD DUNSTERVILLE, *Master R.N.*

*Hydrographic Office, Admiralty, March* 20*th*, 1850.

## Report of the Grog Committee.

The Admiralty committee appointed to consider the expediency of reducing the daily rations of spirits; the equivalent to be paid to the seamen for such reduction; and the expediency of adopting the calendar, instead of the lunar month in the payment of wages, have issued their report.

The committee, after alluding to the dangers resulting from drunkenness on board ship, and the necessity for some preventive measure for its suppression—corporal punishment having been proved to be ineffectual—state that they have taken the opinion of forty-eight officers of the Royal Navy, an American captain, and a doctor of medicine, a professor of a University College, on the subject. The seamen themselves admit that drunkenness is the cause of every crime and of every punishment, in the service, as was shewn by the decrease in the punishment in 1824, when the allowance of grog was reduced. After hearing all the evidence, the committee arrives at the following conclusion.

"That the present allowance of spirits or wine be reduced one half.

"That the remaining portion be issued at dinner time.

"That admirals, captains, and ward-room officers shall not receive any payment for the half ration of spirits taken from them.

"That mates, second-masters, surgeons' assistants, and clerks shall receive compensation at the present savings price for the half allowance of the spirits to be reduced.

"That midshipmen, cadets, and boys, who do not receive a ration of spirits, be paid a compensation equal to the 'savings price' of the present whole allowance.

"That warrant officers, working petty officers, able and ordinary seamen, and non-commissioned officers and privates of Marines shall receive for their half allowance a compensation payment in money of 3s. 6d. per man per calendar month.

"That 2nd class ordinary seamen and landsmen be allowed 2s. 6d. per man per calendar month.

"That men wishing to give up the reduced allowance, shall receive a further compensation equal to the savings price for such period as they may think proper.

"That no raw spirits be issued to any one, except under special circumstances, at the discretion of the captain.

"That in cases of persisting drunkenness, a deduction, or discontinuance, be made, for a short time, in the compensation allowance.

"That the monthly allowance to the men out of their growing wages be limited to 12s. per month.

"That the police on board her Majesty's ships be put on a better footing.

"That the seamen and marines shall be at liberty to make a larger allotment for the maintenance of their families, viz., £1. 1s. 6d. per month for an able seaman.

"That the Admiralty circular to the fleet of the 21st of July, 1846, respecting provisions, be brought under review, for the purpose of a more satisfactory adjustment of the scale.

"That the proposed measure take immediate effect as regards all officers and all future entries; and that, as regards ships in commission, their lordships fix a convenient day for carrying the measure into effect. But men now in the navy should, in the meantime, have the option of taking advantage of the proposed compensation allowance."

The committee with regard to their third subject of investigation, express their concurrence in the opinion of the committee of officers assembled in Feb. 1847, that in comparing the wages of our seamen spread over 13 months, and the wages in the merchant service and in the American navy, calculated for 12 months, an undue impression is sometimes made to our disadvantage. They therefore recommend the adoption of the calendar month. By this mode of reckoning, the able seaman who now receives 34s. per lunar month, will receive

for the calendar month of 31 days (omitting fractions), 37s. 7d., which, with the compensation for the reduced allowance of grog, will make the entire amount of 41s. per month.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory. From the 21st of February, to the 20th of March, 1850.

| Month Day | Week Day. | Barometer. In Inches and Decimals. | | Thermometer In the shade. | | | | Wind. Quarter. | | Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | Th | 30·18 | 30·17 | 42 | 51 | 38 | 52 | W | W | 5 | 4 | qo | o |
| 22 | F. | 30·30 | 30·32 | 49 | 53 | 45 | 54 | NW | NW | 4 | 4 | bc | bc |
| 23 | S. | 30·32 | 30·28 | 43 | 49 | 38 | 50 | SW | SW | 1 | 1 | o | o |
| 24 | Su. | 30·28 | 30·29 | 40 | 42 | 39 | 43 | W | W | 1 | 1 | o | o |
| 25 | M. | 30·37 | 30·36 | 40 | 45 | 36 | 46 | E | E | 1 | 1 | o | o |
| 26 | Tu. | 30·40 | 30·38 | 42 | 49 | 40 | 50 | SW | SW | 1 | 1 | o | o |
| 27 | W. | 30·30 | 30·21 | 34 | 48 | 33 | 50 | E | SE | 1 | 2 | of | b |
| 28 | Th. | 30·16 | 30·15 | 37 | 40 | 33 | 41 | E | W | 1 | 1 | of | o |
| 1 | F. | 30·29 | 30·31 | 42 | 50 | 38 | 51 | SW | SW | 2 | 2 | bcm | bcm |
| 2 | S. | 30·31 | 30·26 | 48 | 52 | 45 | 53 | SW | SW | 6 | 5 | qo | qo |
| 3 | Su | 29·89 | 29·79 | 45 | 51 | 42 | 52 | SW | SW | 4 | 4 | bc | bc |
| 4 | M. | 29·96 | 30·16 | 41 | 42 | 38 | 43 | N | NE | 5 | 4 | bcp 2] | bc |
| 5 | Tu. | 30·54 | 30 55 | 33 | 45 | 27 | 46 | SW | W | 2 | 2 | bcm | b |
| 6 | W. | 30·59 | 30·55 | 37 | 52 | 33 | 53 | W | W | 3 | 3 | bcm | bm |
| 7 | Th. | 30·55 | 30·52 | 41 | 48 | 36 | 49 | SW | W | 1 | 1 | ofg | of |
| 8 | F. | 30·44 | 30·36 | 42 | 45 | 42 | 46 | NE | NE | 1 | 1 | om | ogd 4) |
| 9 | S. | 30·26 | 30·20 | 42 | 48 | 40 | 49 | E | NE | 1 | 1 | o | bm |
| 10 | Su. | 30·26 | 30·24 | 37 | 50 | 34 | 51 | W | NW | 1 | 3 | bcf | bm |
| 11 | M. | 30·42 | 30·46 | 38 | 45 | 33 | 46 | N | NE | 2 | 6 | bm | bc |
| 12 | Tu. | 36·58 | 30·55 | 34 | 48 | 28 | 49 | NE | NE | 2 | 2 | b | b |
| 13 | W. | 30·53 | 30·47 | 36 | 52 | 31 | 53 | NW | NW | 2 | 1 | bm | bm |
| 14 | Th. | 30·49 | 30·48 | 44 | 45 | 34 | 46 | NE | NE | 2 | 3 | o | o |
| 15 | F. | 30·46 | 30·42 | 40 | 42 | 37 | 43 | NE | NE | 3 | 3 | o | o |
| 16 | S. | 30·37 | 30·16 | 33 | 44 | 25 | 46 | W | N | 1 | 4 | o | bcp (3 |
| 17 | Su. | 30·29 | 30·29 | 33 | 38 | 26 | 39 | NE | NE | 4 | 4 | o | bc |
| 18 | M. | 30·28 | 30·24 | 33 | 39 | 24 | 40 | NE | NE | 3 | 3 | bc | bc |
| 19 | T. | 30·13 | 30·11 | 42 | 45 | 32 | 46 | NW | N | 4 | 3 | o | op (3) |
| 20 | W. | 30·18 | 30·18 | 42 | 44 | 36 | 46 | NE | NE | 2 | 2 | bcp 2] | o |

February, 1850.—Mean height of the barometer = 29·959 inches; mean temperature = 43·8 degrees; depth of rain fallen =0·99 inches.

## TO OUR CORRESPONDENTS.

Captain Burnett's paper shall appear in our next ; also that of Mahmouz Effendi.

Our Liverpool Correspondent is informed that Mr. Walker of Castle Street, is *our* agent at that place, and that he has the *Nautical* regularly by the *first* of every month.

The *Plan of the Royal Sovereign Harbour*, should have accompanied Mr. Brooks' paper in our last number.

Hunt, Printer, Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

# Naval Chronicle.

MAY, 1850.

## Passage of Cape Horn by the Nassau Channel.

*H.M.S. Dædalus, Valparaiso,*
*January 30th*, 1850.

Sir.—Having pursued a novel track in making our voyage round Cape Horn, I have been induced to forward you an account of it, for insertion, (should you consider it of sufficient interest), in your widely circulated Magazine.

I must first beg to tell you that the deviation from the usual course, was suggested, and highly recommended by Capt. Sullivan, R.N., whom we met on our visit to the Falkland Islands. He having been engaged in the survey, was well acquainted with the localities of Tierra del Fuego, and felt convinced that we should expedite our voyage, and avoid the boisterous weather and heavy seas, so frequently encountered to the southward of the Cape. It was under these circumstances that Capt. Wellesley resolved to make the experiment.

We left the Falkland Islands on the 21st December, and at noon of the 25th arrived off Staten Island, eastern point bearing E.S.E., western point S.b.W.$\frac{1}{2}$W., (compass), ran through the Straits of Le Maire, keeping mid-channel, to avoid the tide ripples that were apparent off the western part of Staten Island, and Cape St. Diego. At 6 P.M. Bell Mountain bearing N.W.b.W. fourteen or fifteen miles, the wind which had been from N.W. to W., shifted to W.S.W., with squalls and rain: braced up, standing to the southward, (barometer 29·66, thermometer 45°). Towards midnight the wind was light and variable, from S.W. to

W.N.W. At 1h. tacked, standing in shore, noon 26th, north end of New Island N.W., centre of Evout Islands S.W.$\frac{1}{2}$.W., tacked occasionally to light variable winds, (barometer 29·30, thermometer 48°).

At daylight on the 27th, the weather suddenly assumed a threatening aspect, and blew hard from the S.W.; Lennox Island being under our lee, we bore up, and ran for the anchorage in the Roads, rounding Luff Island close to, anchored in 9$\frac{3}{4}$ fathoms, (coarse sand and shells), with the outer point of Luff Island E.S.E., Observation Point S.$\frac{1}{2}$W.: good holding ground and excellent shelter from S.W. winds. Here abundance of wood and water may be obtained, black and red currants were growing luxuriantly, the auriculus in blossom, and wild celery; from the boisterous state of the weather and frequent snow showers, it was very cold on board the ship: on landing under the lee of the island, we found the temperature very pleasant. Three of the natives visited us in a small canoe.

The wind shifting to the northward at 6 P.M. on the 28th, weighed, and proceeded to the southward as far as North Road, Wollaston Island, when the barometer indicating a change by its falling to 28·96, we anchored in the Road in 12 fathoms, (sand and gravel), easternmost islet N.N.W., northernmost point of Wollaston Island W.S.W.: whilst here it blew hard from the W. to S.W., but there being little or no sea, we held on well with 130 fathoms, taking the precaution to have another anchor under foot.

Sunday 30th, moderate and fine, wind S.W., barometer 29·06, weighed at 5h. A.M., working to windward for Orange Bay, but the wind gradually increasing to a fresh gale, and finding a current of 1$\frac{1}{2}$ or 2 knots setting to the eastward, we again bore up and anchored in North Road, very near our former anchorage, (barometer 29·30 at midnight).

Monday 31st, moderate and squally wind S.W., (barometer 29·40 thermometer 39°,) remained at anchor, were visited by several natives in canoes, the most miserable looking beings I ever saw, without clothing of any description, with the exception of a piece of seal skin over their shoulders, fastened round their neck; they appear to be entirely destitute of all the necessaries of life, subsisting on shell-fish, principally limpets. Their constant cry was "yam-a-schoora;" give! give! they neither expressed astonishment at what they saw, nor were thankful for what was given them, but seemed to think it a matter of course that as we had so much of what they had so little, it was our duty to administer to their wants.

January 1st, 1850, light air and fine, wind S.W., barometer 29·41, thermometer 40°. The sea was observed to break by the captain (who sent for me and pointed it out) off the Easternmost islet (North Road) but as there was nothing of the kind marked in the chart, and we had not observed any break there before, fancied it was caused by the tides meeting. But after watching a few minutes I felt convinced it was a shoal, and asked permission to examine it in the cutter. I found it to be a rock not larger than the boat I was in, with three feet water on it, surrounded with sea weed which shows on the surface of the water when approaching it; having a depth of 7 fathoms within a distance of twenty

yards all round, and deepening to 11, 14, 15, and 11 fathoms towards the eastern islet, the centre of which bears S.S.W., a large half mile from the rock, and the North Eastern point of Wallaston Island, S.S.E. I consider it a very dangerous rock as vessels bearing up for the anchorage in North Road with a S.W. wind would naturally pass close to the Eastern Islet to fetch in, and unless they knew of its existence it might prove fatal to them, but being aware of its position by being shewn on the chart, they might pass inside it with safety as we did on three occasions. Weighed at 6 P.M., with a light wind inclining to the southward, which shifted to the S.E. during the night with hail, tacked occasionally. At 8h. A.M. on the 2nd, we weathered False Cape Horn, (a good berth should be given this Cape to avoid the eddies that set round and towards it,) and shaped a course for the Ildefonso Islands, passing inside them. We continued making westing until the meridian of 80° was passed, then direct for Valparaiso ariving there at daylight on the 14th January.

In conclusion, I should strongly recommend vessels bound round Cape Horn in summer to take the Nassau Channel, and if possible anchor in Orange Bay, for shelter, as it is nearer False Cape Horn, and the earliest advantage of a shift of wind, might be taken. By referring to Capt. Fitzroy's interesting work and Charts, where what I have attempted is so ably described, you will observe that there are many other good anchorages I have not mentioned, and I attribute it to the fact of that valuable work not being generally known, or appreciated, that this channel is not more frequently navigated. I should not think it right to enter it in the winter months as the days being so short would necessarily increase the anxieties of the mariner.

Yours, &c.

H. W. DILLON,
*Master H.M.S. Dædalus.*

---

## TRAMORE BAY AND WATERFORD HARBOUR.

THE recent recurrence of several disastrous shipwrecks in Tramore Bay, may render some account of so fatally celebrated a locality interesting to the readers of the *Nautical.*

Tramore Bay opens between Great Newtown Head on the west, and Brownstown Head on the east, the latter situated six miles west of the Hook, or east side of the entrance to Waterford Harbour. The summits of Great Newtown Head and Brownstown Head, have altitudes above the sea level of respectively 147 and 102 feet. To enable mariners to distinguish Tramore Bay from the entrance to Waterford Harbour, two beacon towers have been erected on Brownstown, and three on Great Newtown Head. The middle tower of the latter is surmounted by the colossal figure of a man, his left hand pointing to the Hook light-house, but such finger posts are not of any great practical use at sea. The towers are white and form excellent land-marks.

The east and west shores of the bay are high and bluff, partaking of the character of the headlands, on the west shore and nearly two miles within Great Newtown Head stands the village of Tramore, its white terraces rising from the beach to the summit of the steep shore on which it is built. A narrow ridge of sand raised by the united influence of the tides and land streams, extends from near this place across the bay to Rhineshark, giving the bay its fatally deceptive character. Within this bar lies a large extent of submerged lands called the Back Strand, skirted on the north-east by low marshy shores, contributing in hazy weather to keep up the deceptive appearance of distance. At the east end of this bar are some immense heaps of sand called the Rabbit Burrow, which are partially covered with bent and other grasses.

From their summit the bay of Tramore may be seen in all its grandeur, either smooth and glassy as an unruffled lake, or when agitated by the south-west wind exhibiting the frightful magnificence of convulsed nature. Between the foot of the sand-hills and the last shore, the waters of the Back Strand are discharged through a narrow channel. The velocity of the tidal volume through this contracted opening, has scoured a deep hole immediately within the entrance to a depth of twenty-three feet: it is very limited in extent, not more than one cable in length, by half a cable in width. This is known as Rhineshark Harbour; and it is on record that a large homeward bound brig, called the *Grecian*, with a valuable cargo, was about ten years ago saved from inevitable destruction in Tramore Bay by running into this tiny harbour;—an experiment however, which although recommended by others, we should deem very hazardous for a stranger to repeat.

Extending from the Burrow in the direction of Brownstown Head, is a long and tapering spit of sand. The channel to the harbour which is nearly dry at low water, lies between this and the shore. At about half a cable's distance from the latter off the west end of Burrow, and nearly half a mile from the high water shore, lies the Pollock Rock. Vessels coming on shore, on this side of the bay are enveloped in breakers beyond the reach of assistance. The western portion of the beach is clear, and to those whose situation has become so desperate offers the fairest prospect of saving life and cargo by running boldly on it.

The bay has an almost uniform width of two and a half miles, and penetrates the land to the extent of one and three-quarter mile, so that with its bluff headlands and its low interior shore, it is peculiarly liable to be mistaken for the entrance to Waterford Harbour. In a direct line between Brownstown Head and the village of Tramore, and a mile distant from the former, is a rocky patch with fifteen feet over it: the general nature of the bottom is rocky with a slight covering of sand in some places, but no ground that is fit for anchorage: and there is always an indraught into the bay particularly with the flood tide.

Of the many disasters which have gained for Tramore Bay, so mournful a notoriety, the wreck of the *Sea Horse* transport, is the most distressing, the following is from the Rev. R. Ryland's account of it:—

"In the month of January 1816, the *Sea Horse* transport, having

on board the second battalion of the 59th foot, was driven by a raging tempest into this inhospitable bay. It occurred in the day-time. The shore was crowded with people, who were aware of the inevitable fate of the crew, and had no possible means of relieving them. As the vessel neared the shore, those on board were distinctly seen, awaiting in agony the dreadful catastrophe. Husbands and wives, parents and children, (there were many women and infants in the ship) were plainly observed in some few instances encouraging each other; but for the most part clinging to the timbers, or folding their arms round those they loved, that they might die together. Their anticipations were but too well founded: the vessel struck and went to pieces, when two hundred and ninety-two men, and seventy-one women and children perished in sight of the assembled thousands. All that courage and the most devoted gallantry could do, was attempted to save them; and there are some splendid instances of successful exertion, in which the preservers nearly shared the fate from which they had rescued others. The calamity was almost general; only thirty men were preserved. A few days after the shipwreck, nearly sixty corpses, some of them the remains of women and children were carried on the country cars from the coast to the burying ground, at two miles distance. The wretched survivors accompanied the melancholy procession, and witnessed their companions and relations deposited in one vast grave. A monument recording the melancholy catastrophe was placed in Tramore churchyard."

Since the occurrence of this fatal disaster, numerous other vessels have come on shore in Tramore Bay; and in many instances through the stupid mistake of supposing they were entering Waterford Harbour. The most recent of these was in the month of November, 1848, when towards nightfall a French lugger was observed running in before the wind. On the next day two others from the same port, and laden with similar cargoes, (wheat,) committed the same error and went on shore within a few yards of each other. The wind was southerly, with thick or hazy weather; but not so much so as to prevent the land being recognized in time to ascertain their dangerous position: the crews and part of the cargoes were saved. A brigantine went on shore about the same time on the Rhineshark spit when all on board perished.

A few more words on the appearance of the land about the entrance of Waterford Harbour. There is in reality very little if any similarity between it and Tramore Bay: the western shore is indeed high and bold; but the Hook land or Eastern shore is low; its regular outline broken only by the buildings on it: the lighthouse at its extremity, with the village of Churchtown a little within it, and the large dark mass of Loftus hall, form most conspicuous objects and readily distinguish it from any other land in the vicinity.

R. Hoskyn, R.N.

## The German Navy, and German Unity.

"What a field is here for imagination to dwell on."

An attempt has been made to form the nucleus of a navy, by the purchase of a few steam vessels. Whether the reported expressed desire of the patriotic Germans for a national fleet—a fleet of ships of war (of the line) will ever be realized, appears, at present, doubtful.

The "Fatherland" of the descendents of the Teutones, Cimbri, &c., not yet united in interests, as every body knows, is composed of many Sovereign States. Strictly speaking, among these, Prussia,—which though not an old monarchy—is the only one which has any extent of sea coast; but Hanover and the old Hanseatic towns have long been engaged in maritime traffic.

With those exceptions, Germany may be considered as an inland country with an extensive river navigation. Ships, therefore, would seem not to be the best defensive force suited to her natural position; and this will be made more apparent if we call to mind the effects of the winter season upon those portions of the sea coast which she possesses. Some good-natured raillery has been thrown upon this essay of the Teutonics to form a navy. But assuredly there is no predicting what the result may be. This incipient attempt may lead to something more formidable in after times, and eventually prove "no joke".

Mr. Bull is much too fond of undervaluing the exertions of other people. But, let him look to the western side of the Great Waters, and take account of the magnificent commercial schemes of those energetic, enterprizing, go-a-head traffickers, who now *possess the sea coasts of the two great Oceans,* and meditate on his own position with reference to theirs. He must be on the *qui vive,* or, assuredly, they will outstrip him! Let him look to his China trade; is he doing anything in Oregon? and Vancouver's Island is he making a road (a plan that would absorb all his convicts) from the head navigable waters of Canada to the former? or, is he, hands in beckets, musing after his fashion, "Dang it, what's the use, that confounded cunning young fellow Jonathan, over the way, condemn him (John never swears!) he'll have it all by and by!"

According to the view which the position of Germany gives, what can she want with a fleet of ships of war. She should confine her ambition to an establishment less ostentatious, to a flotilla of small steamers, gun and rocket boats, for home service; and a few brigs to protect the merchant ships abroad.

If She designs to make a figure on the ocean, she must have a fleet equal to that of France or of England; any paltry attempt at imitation would be worse than useless; besides, where are arsenals, seamen, docks, and ports for winter quarters?

By assuming an attitude of Neptunian importance, unless she can maintain it upon an equality with the great maritime powers, she would be playing the magnificent *en burlesque.*

Let her recollect that France, whose military monomania, she may have most to apprehend, overran her land, not by descent from the sea, but by crossing her frontiers. Is not her best defensive force therefore, her soldiers?

Russia, Sweden, and Denmark, may harass the Prussian Baltic coast with their ships, it is true; but it is scarcely questionable that that Power's best defences would be in her forts, her red-hot shot, and her bomb shells, and not in ships of war.

If there be truth in the reported desire of the Germans to establish a navy, as an imaginative people, they must have allowed the prospective beauty of a fleet of war ships, to raise up too flattering images of glory, and hopes of future utility therefrom, which, perhaps, a reality would not confirm.

The reflection would be a curious one, and seem very absurd, upon the abstract question of a people ambitious of realizing a fleet of war; yet knowing that the ships to constitute it, must of necessity be sent 1500 or 2000 miles from home, to seek shelter during the winter! the thing, indeed, seems so preposterous that, we may suspect the press to have misapprehended the meaning of the Germans; and that for "fleet" we should read "flotilla." We may hope, however, though we may not trust too confidently on the future, that the olive-branch of peace, rather than the sword or the cannon of war; will become the emblem to which Princes and their ministers shall attach the most for the sake of humanity, for the furtherance of good government, for the happiness of their subjects, and the tranquillity of the world.

A leaf out of history, if they choose to examine it, may serve to enlighten the Germans with respect to the hereditary emperorship; here it is:—

"Common sense tells us, that no nation that has the power of electing a prince, ought to choose such a one as if possessed before of a considerable hereditary estate, that he may think it his interest to take more care of that than the elective kingdom: for he either will certainly be very careless of the interests of the elective kingdom, or else he will make the interest of the elective kingdom subservient to that of his hereditary countries, and make use of the strength of the first, to maintain the latter, and render it more powerful; or else he will endeavour, by making himself sovereign over the elective kingdom, to make it dependent on his hereditary estate."

The conduct of the Emperor Charles the Fifth is then touched upon thus: "Germany found all these three inconveniences by experience, under the reign of this Emperor; for he came very seldom into Germany, and that only *en passant:* he never made the true interest of Germany the rule of his designs, but all was carried on for the grandeur and increase of his house; and at last, under pretence of religion, he attempted to suppress entirely the ancient liberty of the estates."*

Time, the promoter as well as the destroyer of men's works and

* Puffendorf.

schemes, brings strange revolutions in the opinions of successive generations. This German Emperorship discontinued by the house of Vienna as valueless, is now, after a long period of abeyance, sought to be renewed, as if the northern Germans had suddenly discovered that it was a "pearl beyond price!" The maxims of the wise which lie enshrined in the repository of the past, are lost in utter forgetfulness to the men of a new era; as though a posterity were not indebted to the philosophy of the sage thinkers, and industrious recorders of gone-by ages; and could derive nothing from the registered expositions of the failures and follies of remoter government.

---

## Turkish for Tars, No. IV.—*By Mahmouz Effendi.*

(Continued from page 176.)

As there happen to be more ways of killing a dog than hanging him, so are there more methods than one of acquiring Turkish. One man for instance prefers learning words by heart from a vocabulary alphabetically drawn up, without reference to subjects: another looks for a new alphabetical, yet well arranged classification, in which special attention *is* paid to subjects: a third will merely sally forth into the bazaars, keep his ears open, and never look at a book: while a fourth will shut himself up, pore over the pages of volume after volume and not care a fig for conversation; a fifth will think it foolish to learn any words at all till the thirty-three alphabetical letters in their initial, medial, and final forms are mastered, and some progress is made in reading; and a sixth will even discard all hope of ever deciphering the *Nishki* character (although Persian, Arabic, and Hindustani as well as Turkish are written in it); and then a seventh, more wise than all, in our humble opinion, will avail himself as far as possible of any of these ways, and means, and methods, whenever time and opportunity may enable him to do so.

Then again there are some students who loom large as sticklers for the affinity or non-affinity of tongues, and among this particular class are some who will not condescend to learn a single language by itself, but who "spectacles on nose" require four or five to be simultaneously set before their insatiable eyes, thus sailing as it were into the Sea of Knowledge in four columns, line abreast. If there be any such Solomons among the readers of the *Nautical*, we can't say that we intend to attempt to gratify their peculiar taste beyond the subjoined brief sample to which however they are right welcome; and as French is now so very common as to have become almost unfashionable, they may (an' they so please) amuse themselves in their easy arm chairs, by throwing that particular column overboard, and replacing it either with one in Spanish to suit their future dealings with Levantine Jews; or, with Italian, for the mariners they may meet in the Archipelago; or with Arabic for those turbaned Sindbads, who are ever slinking along the coasts of Syria and Egypt, and ready to convey travellers from port to port "for a consideration."

| *English.* | *Koordish.* | *Turkish.* | *French.* |
|---|---|---|---|
| Tortoise | Kessal | Kaplum-bagha | Tortue |
| Trout | Kashina | Ala-balighy | Truite |
| Quail | Karawara | Bildurdjin | Caille |
| Grey partridge* | Seska | Tihour | Perdrix |
| Grapes | Træ | Ouzoum | Raisins |
| Valley | Doli | Dèrè | Vallée |
| Lady | Yaya | Kadin | Dame |
| Gunpowder | Derman | Barout | Poudre-à-canon |
| Locust | Koolla | Tchekirguè | Sauterelle |
| Horse | Esp | At | Cheval |
| Poplar | Kawak | Kavak | Peuplier |
| Willow | Sughuit | Seugut | Saule |
| Gentleman | Agavat | Bey-zadè | Gentilhomme |
| Wanderer | Kheil | Yuruk | Rodeur |
| Flute | Bilwar | Duduk | Flûte |
| Shepherd's pipe | Shemshal | Kaval | Flûte |

Were we writing for any one about to visit the ruins of Nineveh, an extended vocabulary in Koordish, Persian, Turkish, and Arabic would be almost indispensable. But we are here simply penning a little "Turkish for Tars", and to that point with a due regard to our allotted space in the *Nautical* shall we now adhere. In the articles already printed we have given in Turkish and English a list of Levantine exports and imports; and a table of naval terms with some few others likely to be useful on shipboard; and then we added such words as were most likely to be wanted by blue-jackets when taking a cruize ashore. But in all these cases we gave the English words first, and it now, therefore, strikes us we ought to "turn the tables," and tender a vocabulary in which the *pas* shall be given to the Turkish. Otherwise our readers may be placed in the predicament of the puzzled unlettered traveller in Germany, who certainly found in his guide-book all the phrases he had himself to utter to the waiters; but on the other hand not one of the replies which the waiters made to him in return.

| *Turkish.* | *English.* | *Turkish.* | *English.* |
|---|---|---|---|
| Ab | Water | Bazar-ertesi | Monday |
| Abdest | Ablution | Behalu | Dear |
| Ad | Name | Behar | Spice |
| Adlu | Renowned | Belki | Perhaps |
| Ada | Island | Belli | Very well |
| Adaler | Islands | Besh | Five |
| Adam | Man | Beshlik | Shilling |
| Adamler | Men | Bez | Cloth |
| Adet | Custom | Biber | Pepper |
| Afium | Opium | Bilmem | I don't know |
| Afium-rouhi | Laudanum | Bin | Thousand |
| Aghadj | Tree | Bir | One |
| Aghadj-keumuri | Charcoal | Birindj | Rice |
| Aïou | Bear | Bitchak | Knife |
| Aï | Month | Boghaz | Strait |
| Ak | White | " | Throat |
| Alt | Under | Boghdai | Grain |
| Akhor | Stable | " | Wheat |

* For a graphic description of a partridge fight, (a most favorite amusement among the Koords,) see Rich's Koordistan, page 91, and also page 116, vol. I.

| *Turkish.* | *English.* |
|---|---|
| Altmish | Sixty |
| Alti | Six |
| Amadj | Target |
| Anaktar | Key |
| Anisoun | Anise |
| Ap | Quite |
| Ap-atchouk | Quite open |
| Armoud | Pear |
| Araba | Cart |
| Arpa | Barley |
| Arpa-sui | Beer |
| Arslan | Lion |
| At | Horse |
| Atlu | Horseman |
| Atlu-askier | Cavalry |
| Attesh | Fire |
| Atteshlu | Frisky |
| Av | Game |
| Av-tufengui | Fowling-piece |
| Avret | Woman |
| Bakkal | Chandler |
| Bakla | Beans |
| Bakshish | Present |
| Bakyr | Copper |
| Bal | Honey |
| Bal-moumi | Wax |
| Balyk | Fish |
| Bana-bak | Look at me |
| Bardak | Jug |
| Bash | Head |
| Bazar | Market |
| Bazar-guni | Sunday |
| Boia-oty | Madder |
| Bordj | Debt |
| Bosh-lakirdy | Nonsense |
| Bougha | Bull |
| Bounar | Spring |
| Boukal | Bottle |
| Bournous | Cloak |
| Bouroun | Cape |
| " | Nose |
| Bouzaghou | Calf |
| Bu | This |
| Bu-adam | This man |
| Bu-guèmi | This ship |
| Bu-goon | To-day |
| Butchouk | Half |
| Buyuk | Great |
| Camera | Cabin |
| Dagh | Mountain |
| Dana | Calf |
| Dar-fulful | Long pepper |
| Deïrmen | Mill |
| Demir | Iron |
| Derè | Valley |
| Deri | Skin |
| Dervend | Mountain-pass |
| Destimal | Towel |
| Dèvè | Camel |
| Devid | Inkstand |
| Devedji | Camel-driver |
| Dhon-yaghy | Tallow |
| Djamous | Buffalo |
| Diar | Province |
| Dizguin | Rein |
| Djuma-guni | Friday |
| Djuma-ertesi | Saturday |
| Dokouz | Nine |
| Doksan | Ninety |
| Domouz | Pig |
| Domouz-boudi | Ham |
| Domouz-ety | Pork |
| Dort | Four |
| Dortindji | Fourth |
| Dost-um | My friend |
| Dour! | Halt! |
| Dukkian | Shop |
| Dourbin | Spyglass |
| Dun | Yesterday |
| Ebazir | Spice |
| Edeb | Politeness |
| Eï | Good |
| Eïer | Saddle |
| Ekmek | Bread |
| Ekmekji | Baker |
| Elli | Fifty |
| Elmah | Apple |
| El-mahramasi | Napkin |
| Emroud | Pear |
| Enar | Pomegranate |
| Esheck | Donkey |
| Eski | Old |
| Et | Flesh |
| Eudèmek | To pay |
| Eutch | Three |
| Ev | House |
| Evvett | Yes |
| Fena | Bad |
| Fener | Lantern |
| Finjann | Coffee-cup |
| Fulful | Long pepper |
| Guèdouk | Mountain pass |
| Guel | Come |
| Gueul | Lake |
| Gueik | Ibex |
| Guèmi | Vessel |
| Gueun | Hides |
| Guit | Be off |
| Guzel | Beautiful |
| Haidè | Forwards! |
| Hajji | Pilgrim |
| Hali | Carpet |
| Hammal | Porter |
| Hammam | Bath |
| Hibeh | Saddle-bag |
| Hissar | Castle |
| Hourmah | Date |
| Iki | Two |

| *Turkish.* | *English.* |
|---|---|
| Ileh | With |
| Indjir | Fig |
| Inek | Cow |
| Inguiliz | English |
| Inguilterra | England |
| Ipek | Silk |
| Irmak | River |
| Iskèlè | Landing-place |
| Istakos | Lobster |
| Istèrim | I want |
| Kadeh | Glass |
| Kaïa | Rock |
| Kaik | Boat |
| Kaleh | Castle |
| Kamtchi | Whip |
| Kandil | Lamp |
| Kaplan | Tiger |
| Karpouz | Melon |
| Kara | Black |
| Kashik | Spoon |
| Katir | Mule |
| Katirdji | Muleteer |
| Kav | Tinder |
| Kav-hanè | Coffee-shop |
| Kavè | Coffee |
| Kavoun | Melon |
| Ketchi | Goat |
| Kerman | Castle |
| Keshmish | Currants |
| Keumur | Coals |
| Keupri | Bridge |
| Keurfeuz | Gulf |
| Khaïr | No |
| Khardal | Mustard |
| Kiaghyd | Paper |
| Kilim | Carpet |
| Kirk | Forty |
| Kizzil | Red |
| Kisseh* | Purse |
| Konsolos | Consul |
| Konsolos-vekili | Vice-consul |
| Koubour | Holster |
| Koulak | Ear |
| Kourd | Wolf |
| Kourt | Worm |
| Koundouz | Beaver |
| Kourountina | Quarantine |
| Kourou-ouzoum | Raisins |
| Koutou | Box |
| Koyoun | Sheep |
| Koyoun-ety | Mutton |
| Kui | Village |
| Kurk | Fur |
| Kutchuk | Little |
| Kymak | Cream |

*(To be Continued.)*

---

NOTES AMONG THE ISLANDS OF THE PACIFIC.—*Extracts from the Remarks of H.M.S. North Star, Capt. Sir E. Home, R.N., Bart.*

(Continued from page 221.)

THE natives of the islands which we have visited are in their manners mild and sensible, very shrewd, and at Wallis Island very avaricious; they all desire to have European clothing, and these islands would be a great opening both to our hardware and cotton manufacturers. The return at present would be little else than cocoa-nut-oil; sugar, indigo, coffee, but all the productions of the West Indies will in time be exported from these islands. The wealth of the forests is quite unknown: the climate is extremely healthy; children are very numerous and very idle, they are apt at learning, and where the English missionaries are established most can read and write. They have a warm attachment to the English nation, having perhaps heard of Englishmen from their earliest childhood as being their friends, in the same way as we have an interest in them from the same cause. They have, with the exception of Wallis Island, a hearty detestation of Romanism, and there is a party so strong against it that it has already led to war between them. They are desirous to possess and wear European clothing, notwithstanding the inconvenience of it in this hot climate. None who have embraced christianity have

* The "purse" so often mentioned in Oriental writings is of the value of £5 English; thus ten purses is but another term for fifty pounds.

more than one wife; this singularity of wives required by our religion being I believe one of the greatest obstacles to it. In New Zealand those who have embraced it are steady, and sincere in the practice of it.

No food at any time passes their lips without a grace, the Sabbath is kept most religiously. Adultery and theft are very rare, no single instance occurred with respect to the ship or people at any of the islands. The vices of the Europeans are their aversion, much rather than an example for them to follow; drunkenness is most probably the vice in which they would most indulge if they had the means; and I fully believe that of the many countries that I have seen professing christianity, the natives of these islands are amongst the best and most sincere.

The winds during our stay at Wallis Island, were between north-east, and south-east, the weather for the greater part cloudy, and squally, with rain, but very fine at intervals. The latitude of the Sail Rock was found to be by two meridian altitudes of Stars, *a* Lyra, and *a* Crux one north the other south, 13° 22′ 14″ S. The longitude of the same place by mean of seventy sets of distances, by two observers 176° 11′ 15″ W., the sun east of the moon; the variation of the compass 6° 51′ E. The dip of the needle was observed in the village to be 26° 12′, the soil white sand. The range of the barometer was from 29·87 to 30·08, and the thermometer from 80° to 88°. The temperature of the water was 83°.

At 1 P.M. on the 14th September, the ship left Wallis Island with the last of the ebb; the tide sets towards the little island. The passage out is more simple than entering, and having cleared the island we kept our wind upon the larboard tack to get to the eastward; the great head sea causing much uneasiness and delay to the ship, the breezes strong. On the 21st it was squally and cloudy, at 10 A.M. Boscawen's Island was seen bearing west, and at noon it was W. ½ N. about forty miles. The latitude of the ship observed, was 16° 4′ S., and longitude 172° 50′ W. The heavy swell driving the ship to leeward more than we could afford, prevented my taking a closer view of it. Being now sufficiently far to the eastward to enable us to fetch down, we stood away S.S.W. for New Zealand.

At 7 A.M. on the following day the Island of Amagura was seen from the mast-head; kept away south-west, and at noon were off the island, the centre bearing S.E.b.E. ¼ E. ten miles, the latitude 17° 52′ south, the longitude 174° 12′ west, the variation that day 9° 41′ east; at a distance it appears like two islands. The island is formed of two hills, the space between them so low as nearly to divide it into two; the north-east hill is the highest. At 12h. 30m. P.M. we were distant about five miles from it; the coast is every where surrounded by rocky cliffs excepting two places on the west side which appear to be bays. I saw no trees of any sort upon the island, or any smoke or other indication of inhabitants. Running S.W.b.S. at 7 knots per hour at 2h. the island of Amagura bore E.b.N. ½ N. twenty-five miles; and at 3h. 25m. P.M. the Island of Lotte was seen bearing S.S.E. ½ E. about thirty miles.

On the 24th, being anxious to see the shoals laid down in Norie's

chart called the Minerva reef, lat. 24° 0′ south, long. 178° 15′ west, I hauled up S.S.E. that evening, for if a reef exists in such a sea as this, its place should be determined. The weather was now fine and the water smooth, the morning had been squally with strong breezes, thunder, lightning, and rain. A reef seen by the *Conway* and *Favorite* is placed some miles westward of the Minerva reef. On the morning of the 25th the breeze was light and the weather clear, it however, became thick with all appearances of coming on to blow. I stood on north-west, and passed northward of all the positions assigned to it. I think it probable that the Minerva reef, and Conway Shoal are the same with different positions assigned to them; the weather however would not justify my staying to look further, it was hazy and squally with rain, a very unpleasant position to be in looking for shoals, the extent of which could not have been seen, and no sun or stars to fix the position if found.

On the 28th crossed the Tropic, in longitude 177° 35′ west. To this period the weather has been generally fine, sometimes squally with rain, the breeze fresh from east to S.b.E.

On the 25th when in latitude 22° 12′ south, and longitude 178° 11′ west, the wind became more northerly, blowing from E.b.N. to north and N.E.b.N., that day going round to north-west. On the day following fresh breezes, squally with rain.

On the 27th the wind worked its way round to west, south-west, and S.b.W. On the 28th when on the Tropic it was calm and very fine, the range of the barometer was from 30·00 to 30·05. The thermometer from 73° to 84°, the sea-water from 84° to 72°, the greatest difference between it and the air being 6°.

On the 11 of October the *North Star* arrived at Auckland, New Zealand, having touched at the Bay of Islands on the 9th, sailing again the same evening. From crossing the Tropic upon the 28th; until her arrival at Auckland the winds were from north, S.S.W., S.b.E. E.S.E., N.N.E., N.N.W., north-west, W.b.N., west, W.b.S., south-west, S.b.W., S.S.E., S.b.W., S.S.W., south-east, east, E.b.N., and E.N.E., light airs and moderate breezes and fine. Once it blew strong; calms were not unfrequent, the barometer ranged from 29·80 to 30·48 the temperature of the air from 78° to 58°, and the water from 77° to 60°. The ship remained at Auckland from the 12th until the 24th, during which time the weather was fine for the greatest part, with fresh breezes and squalls occasionally, the winds from west, south-west, and south. The barometer ranged from 30·25 to 29·58, the thermometer from 67° to 54°, the dip of the needle was observed in the garden of the harbour-master, in Official Bay, to be 61° 12°, and the variation at the same place 12° 21′ east. Whilst at Auckland I visited a forest of Cauri trees near the Manikan. The largest trees which I saw there would square, at five feet from the ground, four feet five inches clear of the branches for forty feet. Another at five feet from the ground squares five feet six inches and is clear of branches, for forty feet perfectly upright and smooth. These trees cannot be less than 300 years old if not more. I am told of another which squares nearly seven feet!

On the 24th of October the ship left Auckland, and anchored off Kororareka in the Bay of Islands, on the 26th in 5 fathoms mud; a rock called Observatory Island E.b.S., and the Flag-Staff on the hill N.E. The *North Star* remained at the Bay of Islands until the 4th November, in that interval the weather was fine, with moderate and fresh breezes from west and N.W.b.W., W.S W., and S.W.; the dip of the needle observed at a little bay close to the rock above-mentioned, was 59° 48′, and the variation at the same place found to be 9° 33′E. The barometer ranged between 30·18, and 29·60, upon which latter day it blew fresh from N.W., but nothing very remarkable. The thermometer ranged between 76° and 60°. The harbour is surrounded by hills which are bare of trees; the greater part appears to be a barren moor; the colour of the ground sometimes broken by patches of a lighter brown, being the bare earth upon which nothing will grow. The town stands in a sandy bay, and is the best looking settlement, as well as the best anchorage that in my opinion I have seen in New Zealand.

The houses are built of wood, the Roman Catholic Church is the most conspicuous building standing on a rising ground above the centre of the town; the English Church is a plain building without tower or spire. The town is built upon a flat piece of marshy land; there are a few shops fronting the sea: the number of houses do not exceed 150. The European population is 170: no natives reside in the town, in which there are two native Pahs which they have refused to sell. Kororareka is a place of little importance, frequented principally by whalers, the greater part of which are Americans. At the Waimate distant from the bay about fourteen miles, is a college or public school.

The natives at this place were beginning to give trouble by stealing horses from the settlers and cutting down the Flag-staff upon the hill, above the town; a chief in that neighbourhood believing that the signals made at it prevented ships from coming in who were bringing tobacco for them.

On the 4th November the ship left the Bay of Islands, and arrived at Port Arthur on the 23rd, having been delayed by strong gales from north-west and south-west preventing our getting round the North Cape until the 9th: the wind came round to W.S.W. and west, varying to north-west; and on the 13th to south-east and south-west, south, and south-east, east, E.N.E., north-east and north, north-west, south-west, east, N.N.W., west and south-west. The breezes moderate or light, occasionally calm; the range of the barometer in this passage, and to the end of the month was from 29·50 to 30·10, and the thermometer from 70° to 52°, the water from 54° to 74°. Preparations were immediately commenced for heaving down the ship at the dock-yard.

During the month of December the winds were from south-west, S.S.W., west, south-east, south, east, north-east, west, north-west, south-west, S.b.W., north-east, north-west, S.S.W., south-west, calm, south-west, west, W.S.W., N.N.E., north-east, north, the weather for the greater part strong breezes, squally, cloudy, with rain, very variable, then moderate breezes, light and calm with very fine weather, succeeding the bad and so on: the range of the barometer was from 30·42 to 29·47, the thermometer from 48° to 75°, varying sometimes 20° in

twenty-four hours, and the changes of the barometer as sudden and extreme as that of the weather, or seven-tenths of an inch in forty-eight hours: at the greatest depression there was a gale of wind of considerable violence.

J. Everard Home, *Captain.*

---

## The Sailors' Home in Wells Street, London.

*(Continued from page 653 vol. 1849.)*

Resuming the subject of the Sailors' Home, we find that during the year 1837, the directors had been enabled to proceed towards the completion of the building, by the addition of seventy-five sleeping cabins &c., whereby accommodation could be afforded to 175 men.

The sums of money supplied by the benevolence of the public during this period, were nearly four times that of the previous year; the Bishop of London, Capt. Henry Hope, and an unknown friend, are expressly mentioned in the report as donors of large amounts, and the establishment of the Home, has caused several sailors' boarding-houses of the worst description, to be shut up altogether.

The report for 1838, states that further work has been done to render the Home more complete, and comfortable; and the directors were able to state the pleasing fact that order and quietness were now maintained, and that a considerable change for the better had taken place in the conduct of the men, and the committee of the Dreadnought H.S., reported that very few of the boarders of the Sailors' Home, had occasion to apply on board her for relief; and their visiting physician, Dr. Budd, affirmed that if sailors could be induced to resort while in port to places, which like the Sailors' Home are kept clean, and well ventilated, one great cause of their mortality in the port of London, would be removed. Some changes took place during the year, and we find the able services of Capt. G. Pierce, R.N., now added to the Institution. The report for 1839 informs us of the completion of thirty-three more sleeping cabins ;—that there had been a gradual increase annually in the number of boarders from the opening, and that the directors while keeping the important end steadily in sight, that the improvement of the English sailor is their principal object, yet in the progress of its working, the doors of the Home are open to sailors of all nations, and its benefits are alike dispensed to all who come to it. Thus there may be found under its roof at the same time, men of almost every country that traffics on the sea, of every persuasion that has been set up in the world, and of every shade of colour that distinguishes mankind, and not long since thirteen Chinese sailors, and several natives of the South Sea Islands were amongst its boarders. The number of them continued to increase, another dormitory had been completed, and a larger sum of money had to be acknowledged during 1838 than in any former year.

This report also expresses the unfeigned regret of the directors for their loss, by the death of Mr. John Chippendale, sen., of Uxbridge, one of its earliest, constant, and most liberal supporters during his life, and their acknowledgments for a legacy of £100 at his death; and a similar legacy left by Leonard Hastings, Esq., of Islington.

At the opening of the annual meeting in May 1841, the directors devoutly express their acknowledgments to the Giver of all Good, for the measure of success with which he had crowned their labours, and the report goes on to show that the offices of the Sailors' Home, have never been in a more prosperous state, that it may now be considered as thoroughly established, and to be steadily and systematically proceeding in almost all the various parts of its original, and comprehensive design; in short, that what was defective, had been corrected, and what was wanting, had been supplied. The pecuniary affairs of the seamen had been attended to, and the greatest pains taken to lead them to a fostering superintendence over their worldly affairs, that would tend to check or destroy those habits of reckless extravagance, to which they are so proverbially addicted. A sailor in the foreign trade, with money deposited in a Savings' Bank is a new thing. There are, however, at this time £400 in the Savings' Bank in Moorfields, belonging to men who have been at, and are still attached to the Sailors' Home; and £119 in the hands of the bankers of the Institution, the property of men who have already deposited £30 (to which they are limited in one year) in the Savings' Bank, and the directors express themselves as desirous to encourage to the utmost in seamen, not only a right use, but a due carefulness of the means that are earned at the expense of so much toil and hazard.

But it is grevious to see men who are acknowledged to possess high and noble qualities, whose general characteristics are courage, fortitude, endurance, generosity, respect for superiors, obedience, disinterestedness, and professional skill, above and beyond the men of other countries, squandering their money, and debasing themselves to a condition below the very beasts that perish in the practice of useless intemperance. The very man who seems to set his life at nought, if by the hazard of it he can serve or save a fellow creature, about whom he feels no particular interest, or from whom he expects no reward; the very men, the resources of whose minds when placed in circumstances of peculiar difficulty, have often astonished those who have had opportunities of witnessing the power of thought as well as promptness of action, with which the nature of their calling seems to invest them; may be found at other times objects of pity and distress, to all who feel for the degradation of a class of their fellow men, in many respects so valuable, and who mourn over the sin that so readily besets them. Sleeping berths to the number of 243 were now completed, and were for the present considered quite sufficient. A navigation school and museum were in contemplation, and such was the success of the Institution that no less a sum than £6,165, including £3,140 of money paid by the seamen for board had been received since the last annual meeting. A legacy of £50 by Capt. John Eates, and one of £20 by a Female Servant at

Cheltenham, were left to the Home this year, during which the number of boarders had greatly increased.

The annual report of May 1842, informs us of further steps having been taken to complete the building, whereby the directors had been able to establish a museum and lecture room; a school for navigation had been opened and a course of lectures on astronomy as connected with nautical science had been given. Associations for aiding the Home appear now to have been formed at York, Norwich, Plymouth, Leamington, Derby, Cheltenham, Newcastle, Hull, Ryde, Sheffield, Totness, Southampton, Teignmouth, Torquay, Exeter, Bath, Brighton, Clifton, Edinbro', Carlow, and Guernsey. To these and to the committee of the West and East London auxiliaries, the directors offer their sincere thanks. The subscriptions, donations, &c., this year, with the last year's balance amount to £1,919, and the seamen's board money to £4,393; and that in the same period no less than £23,000 had been through the books of the Institution, deposited by the men and drawn out again as they wanted it; the Sailors' Home becoming as it were their banker's for the time being. The legacies received this year were those of Catherine Aslett, of Cheltenham, £19. 15s.; Mrs. A. E. Phillips, of Chelsea, £40. 11s.; and Charles Davy, Esq., of Marylebone, £45. 3,833 men were received into the Home between May 1841 and 30th April 1842, and the daily average number throughout the year was 126. With this large increase the report states that the order of the House is kept up, that not so many men come up from their ships intoxicated as they did four years ago; and with these pleasing facts we bring the history of the first seven years of the Sailors' Home to a close, and in our next number we hope to be able to continue it to the present time.

---

## Oral Traditions of the Cinque Ports.—*By Capt. K. B. Martin, Harbour-Master, Ramsgate.*

(Continued from page 218.)

Which of the towns was first honoured by this mark of distinction is at present mere conjecture. Hastings, being contiguous to the conqueror's descent, and presenting a bold outline of ruins upon its aged cliffs, was most probably the western station, as it would flank and overlook the level of Bexhill and Pevensey. According to tradition and history, Athelstan had a mint at Hastings, and the old town had a very fine harbour, the site of which is now called the Stade; and I was once gratified by a view of the foundations, and massive stones of the said ancient pier. It was a very low ebb, and crowds of people flocked down to the shore to examine that which they had so often heard described by their fathers. The piling extended still beyond the margin of the receding tide, and the encroachment of the sea must have been to a great extent; for the visitation is recorded as having effected the complete destruction of the old town of Hastings. An insignificant wooden pier was ereted upon the ruins; but this shared a similar fate during a tem-

pest in the reign of Elizabeth. The sea continues to encroach upon the whole of this line of coast; and, after washing the shore around the noble cliff of Farleigh, we are again attracted to an account of its ravages, by a view of the interesting and picturesque town of Winchelsea. Not a vestige of the old town remains. It is described in history as having contained eighteen churches, and a great population. The site has been covered by the sea for ages, and the date of the calamity was previous to the Norman conquest, and most probably at the same period of time with Hastings. Here again we have the most positive proofs that there has been no gradual recession of the waters, but a sudden and overwhelming tempest, accompanied probably by an earthquake. Here was that extensive arm of the sea, which, uniting and receiving the tributary streams of the Rother, was called the Portus Lemanus of the Romans, having the havens of Winchelsea, Rye, and Romney, the castles of Studfall and Lympne, with several minor fortifications, for its defence. This, in ancient records, was styled the Haven of Safety, on the south coast of England; and, as Fusell emphatically observes, "Where ships once sailed, cattle are seen grazing. Where once flowed the River Lympne (or Rother) is now an expanse of level fields, where patches of verdure are strikingly intermingled with the sand and pebbles of the sea-shore, which have blocked up its channel and choked its harbours." From among this strata a vessel was raised, which was exhibited in the vicinity of London as a relic of Roman naval architecture, and worthy the inspection of the *curioso*. The environs of Studfall castle are the best points of view for comparing the levels of the marsh; and in the massive ruins of its ancient walls, may be traced the holes from which mooring rings have been suspended for ships to make fast to. An extensive forest lined the margin of this once noble port, its length, in a north-west direction, stretching into the inland district upwards of a hundred miles. This fact being attested by ancient writers, we are inclined to look for the proof of its existence; and, accordingly, we find that, wherever drains, wells, or canals have been excavated, large trees have been found imbedded in the masses of shingle and marine substances thrown in by the ocean, and in most places standing in their natural position, protruding, as it were, through the encumbering beds of flinty pebbles with which the whole line of marsh is patched. The only singular exception is this, that in some places timber was found as black as ebony, quite perfect, with the marks of the axe which had felled it, and the dismembered branches beside the parent trunk. Acorns, chesnuts, and forest fruit, are dug out of the peat in a beautiful state of preservation; hence many have inferred that the inundation took place in the autumn, before the trees had shed their honours.

The sea, it would appear, had thus done its worst upon this point of coast, having destroyed the old towns of Hastings and Winchelsea, and, lifting from its secret bed an overwhelming mass of shingle, hurled it into the mouths of the Lympne (or Rother); and, choking it up, at low water it would exhibit an immense flat of loose swampy marsh land, having a complete peninsula of sea-beach at Dungeness, extending for several miles into the British Channel. The natives would then pro-

gressively form embankments to stop its further progress and ruinous effects, and in the course of time the advantages they gained, induced them to unite, and make a simultaneous effort for the security of their possessions. Accordingly we find that upwards of fifty thousand acres of the finest land in Europe, was regained from the sea by the formation of Dymchurch Wall. Henry de Bathe and his colleagues, obtained from King Henry the Third a royal grant, called "The Statutes of Sewers," in which statute they were styled "The Lords of the Level." What a pleasing retrospect it brings to the mind, as the eye of the antiquarian surveys from this proud embankment the beautiful expanse of pasturage, covered with milk-white flocks grazing peacefully, where the surge once rolled in maddening fury to the desolated shore. Studfall, whose base stood upon the strand, now in the centre of a fertile district;—and imagination may then pourtray the Portus Lemanus, when in the reign of Alfred, the Danish fleet sailed up to Appledore, and destroyed it with fire and sword:—the little rural village of Appledore, now ten miles from the sea, then a maritime and principal town of the Anglo-Saxons;—the river, then navigable for a large fleet which had crossed the Northern Ocean, now a narrow, muddy stream, emptying itself, through the little harbour of Rye, into the bay which is formed by the projecting bank of sea shingle at Dungeness.

Much controversy and difference of opinion has existed, relative to the source from which this rapidly increasing Peninsula of shingle originates! That the flints which fall from the cliffs into the tide are its source, will not bear the test of geological investigation, for its rapid extension is far beyond such a supply in many ages; and if closely examined they will be found to be a *red nodule* similar to the vast masses which form the *Highgate Hill*, the tunnel, digging of which yielded the most beautifully silicified fossils of crustacea that can be imagined. Such also is the *Hill of Greenwich Park*, and a mine of these gigantic mounds of shingle is continued onwards, having their counterparts in the neighbouring kingdom of France. Is it not then fair to infer, that as the bottom of the sea, is assimilated in character to the surface of the land, that the restless waters are progressively shifting this accumulating mass from a *marine deposit* onwards to the shore.

We now come to Hythe; and various have been the opinions respecting its early history. Saltwood castle appears to have been a strong defence, intended for the protection of the town and port. Fusell and others doubt this; but they have again lost sight of natural causes, of the great change which evidently and on a sudden took place;—the raising from the deep that extraordinary mass of shingle called Dungeness. And if we admit that it once did not exist, except in a farther offing, then Hythe becomes another of the harbours on the borders of the Portus Lemanus, which had for its boundaries the rising lands of Hythe and Folkstone. Here, also, the ocean has invaded the cliffs. Leland describes its effects thus: "Hard upon the shore be greate ruines of a solemne old nunnerie, yn the walles wherofe apere greate and longe Briton brickes; and on the right hond of the quier a grave trunce of squared stone. The castel yard hath been a place of greate buriale, yn

so much as where the sea hath worne on the banke, bones appear half sticking out. Lord Clinton's grondfaether had there of a poore man a boate almost full of antiquities of pure gold and silver."

Much curious speculation was excited on opening the ground, in the construction of the canal and military redoubt at the time of Napoleon's threatened invasion. The line of canal crossed the eastern side of the Portus Lemanus, groins were cut through, and remains uncovered which would certainly indicate a sudden inundation, in lieu of anything like a progressive change. Among other discoveries were the poles of nets similar to those used in the present day, and called kettle nets; and to these poles much of the gear was attached in an extraordinary state of preservation, and buried under a mass of shingle many feet below the surface. It was justly remarked at the time " how terrible must have been the change, which did not allow the poor fishermen time to remove their only property, and their only means of obtaining subsistence." Was it likely they would passively behold a gradual encroachment of the sea, and not remove their gear and nets, which were thus found attached to the poles, indiscriminately associated with the spoils of the land, and the wreck of the sea.

The majestic and stupendous cliffs now present a bold barrier to the tides; and Dover, my native place, next arrests our attention. It was here I first drew my breath, and, rambling among its castellated and romantic scenery, first imbibed a veneration for relics of antiquity, and carefully preserved any tradition or historic record which fell in my way. I had a maternal uncle whose name was Gallant Hampton.* He was a man of extraordinary intelligence for his day; was descended of a noble Kentish family; and, uniting the ancient library of his father's house with periodical publications, supported himself by reading and lending books, and established the first circulating library in Bench Street, Dover. My grandfather, also was fond of reciting to us all he knew of ancient tradition from his father, who was a doctor and a scholar; and, as my venerable ancestor was born in the reign of Queen Anne, and remembered Dover before the innovations of the first American war, which levelled some of its old ruins to erect batteries, we were highly interested by his descriptions. These, and an old eccentric gentleman, Tommy Pattenden, were my authors, from whose antiquarian researches I obtained the following traditions of Dover localities.

The castle, built by the Romans soon after their invasion of Britain, was no doubt intended as a defence for a much more important harbour or haven, than Dover at present possesses. In a survey ordered during the administration of the right honourable William Pitt, then governor of Dover Castle, it was proposed to cut a passage through for the river which flows from the valley, and thus enable it to pass, in a straight line, to the bay, and into deep water; by this means a noble and capacious

*Gallant, a singular chistian name, and a curious, perhaps, amusing anecdote is connected with it:—his father was a page in waiting at the court of George the First, and so ingratiated himself with his superiors by his elegant manners, that some noble personage, sponsor to the boy, named him gallant, out of compliment to the father.

harbour would have been formed, after the description which tradition has handed down to us of its first and ancient port, the proofs of which are many. The houses in Bench Street, were built on the parallel lines of piling, which formed the old pier on the bank of the river. The old three-gun battery was erected upon the commencement of its stone mole, which, curving a little to the west, terminated in the bay, where its ruined head, now covered with the deep, is still recognised in its foundation stones, which are to this day called the Mole Rocks. The battery was a play-ground for myself and schoolfellows, till the present bridge leading to the rope-walk (now the Marine Parade with its spendid terraces,) usurped its place, and was a great improvement to that part of the town. From this point (which was the mouth of the port), the sea flowed in an uninterrupted course up the valley to Waters End, passing through where the villages of Charlton and Buckland now stand, and evidently navigable to Crab-hole (now called Crab-ble), as the remains of naval architecture have been found in that bottom, and heavy anchors dug out of the meadow lands. It is supposed by many, that the priory and Le Maison Dieu were erected on the ruins of Roman fortifications, which then stood on the bank of the haven. Be that as it may, the magnificent baths which were discovered beneath the vaults of St. Mary's church, in the seventeenth century, showed by their arrangement that a river or aqueduct had been in the immediate vicinity for their supply; and whoever has observed the Roman baths, in the Italian dominions, will immediately perceive that the ancients had not the slightest knowledge of hydraulic power, and chose for the site of their buildings, situations where the water could be conducted through without any difficulty.

Hence it is plain that St. Martin's, St. Mary's, the Priory, and Le Maison Dieu, were on the western side of the haven. Le Maison Dieu has for many years been called the Victualling Office; a brewhouse, butchery, and bakehouse, having been constructed by the government under cover of its lofty ruins; and I have often seen the tars filling water from the pure limpid stream, which issuing from the walls of this once splendid nunnery, is still called "Our Lady's Well." St. James's church is the only one remaining, on the eastern side, of the seven churches which Dover once possessed; and we now come to the consideration of the remote but probable cause which here, as in the other parts, occasioned so extraordinary a change. Had a gradual recession of the sea taken place, the river would still have ebbed in an uninterrupted line to the bosom of the deep, and the moles and bulwarks lifted their heads still loftier than before, in lieu of being hid beneath a mass of shingle, or covered with the turbulent waves. Whoever, in the present day, has observed the effect of one heavy gale upon the mouth of Dover harbour in a few hours, and the moving bar of shingle which will block up its passage, will easily reconcile to their minds the manner in which the Portus Lemanus was overwhelmed, and the different havens on our coast destroyed; when most probably, in addition to the tempest, the earthquake heaved from the dark chambers of the deep the loosened sand and pebbly bottom, and hurled them to the shore; and although from some natural

cause that awful visitation is now less frequent, still in our own memories it has been experienced in a slighter degree.

In my boyhood, about the year 1797 or 98, a sharp shock of an earthquake took place at midnight, and, the generality of people being at rest, it was little appreciated; it awoke me with a noise resembling that of shooting coals from a cart into a deep cellar; in the morning we were surprised by the altered appearance of Shakspeare's Cliff, many thousand tons of its crest were precipitated, and formed a chalky promontory, stretching into the sea at its base. The cliffs between Dover and Folkstone all bore evidence, more or less, of its effects; but the most remarkable change occurred at the Folkstone signal station. The land there had subsided considerably, while, upon the shore beneath, a bank of soil had been lifted above the waters. It had the appearance of lead-coloured paint, and, when rubbed between the palms of the hands, gave out a strong sulphurous smell. A very heavy gale of wind succeeded this slight convulsion, or earthquake, and lasted two days, in which time it threw up such a quantity of beach between the piers of Dover harbour, that for several tides it was rendered unnavigable, till the powerful backwater of the sluices cleared a passage through to the sea. Now the whole of the strata in the valley from the Marine Parade, through the streets and market-place, is intermixed with extensive patches of this sea beach; and how clearly the derivation of names will prove the traditions of our forefathers. The sea having, in some extraordinary state of agitation, thrown up an immense barrier of beach and sand against the mouth of the river Idle, or Stream Brook, turned its course along the base of the western cliffs, till, labouring for vent, it issued forth where the present harbour stands, and, being diverted from a straight line to an acute angle, prevented the free ingress and egress of the ocean tides. The sand and soil, accumulating by degrees, would soon occupy the space of a capacious haven or harbour—this may be seen by artificial operations; the rapidity with which land is gained from the sea, when the scouring of the currents or wash of the tides cease, is almost incredible. As a case in point, the sunk island in the Humber is one; and that scientific man, Mr. Smeaton, informs us, that at Ramsgate, in five years, while the works of that harbour, were neglected, an accumulation of soil took place in an area of twenty-five acres, equal to 260,000 cubic yards. Similar causes produce effects corresponding, or varying only with local circumstances; hence the derivation of the name of the upper basin, or "Old Pent, forming that part of the port contiguous to its former or ancient entrance, from the word "Pent," shut in, or shut up, and in contradistinction to the Paradise Pent, which is now covered with streets, but which I remember in high tides an expanse of water; however, as it had become a receptacle for all kinds of filth and rubbish, it was, about the year 1805, levelled and built upon.

Round Tower-street still points out the spot where Henry the VIIIth caused a tower to be erected for the preservation of the shipping lying in this anchorage; and Bulwark-street, formerly a part of the ramparts and fortifications, which terminated at the base of a rock on the strand, now called the Black Bulwark, or Bulwark Rock. Under shelter of

this ancient wall, protected from enemies and storms, the seaman, grateful for the security afforded him, called the anchorage "Paradise Pent."

In the years 1805 to 8, many excavations were made, and a canal dug out from the upper part of the Old Pent, to the foot of the Castle Hill. In this line many interesting remains were discovered, imbedded in the sea beach, which had been thrown in upon them; and piling of a foundation was cut through, parallel to the line of Bench-street. Many other proofs identify the position and existence of the Old Harbour, and may be traced in the names of different localities in the venerable town of Dover In Domesday Book, this harbour is described, and particularly in the reign of Edward the Confessor, as being a port of magnitude and worthy of the most distinguished honours and privileges.

Proceeding from hence along the coast, we find the next assailable point to be the entrance of the river Stoure at Sandwich. Here the sand-hills, piled upon each other, occupy a large space from the N.E. end of Deal to the mouth of this once fine river; which formerly communicated with the Wantsumn, and formed the large estuary already mentioned, affording an open channel from Richborough Castle to the Reculvers, between the Isle of Thanet, and the main land of Kent. The smiling villages which occupy this fine level are all upon a loose sandy strata, interspersed with marine substances, covered by a fertile soil, the deposit of many ages. Shells, pieces of wreck, anchors, &c., have given evident proofs of their once proximity to a navigable channel, which their names evidently testify Sand-wick, Stonar or Estanore, Fleet or Ebb's Fleet, Stourmouth, Fordwick, &c., &c.; Sandwicke, upon the sandy, or sea shore; Stony-shore; Fleet, where Harold is said to have anchored his navy; Stour-mouth, where the Wantsumn waters joined; and Fordwicke, where, at low water, the river might be forded or crossed. This then was the estuary; and let us examine the tides, and see how improbable it will appear that a gradual recession of the waters took place:—it is high water in the Downs an hour and twenty minutes earlier than at the Reculvers, and, consequently, when the tide was at its full height upon their shores, it must have fallen several feet in the Downs, and entrance of Sandwich Haven. With what rapidity then must it have retrograded through the estuary upon the ebb tide, and what would be the effect if a channel were again cut through where it formerly existed?* The natural anticipation would be, that the outset of the land waters from the haven, aided by so powerful a stream, would again form the Brake and Goodwin into an island or islands. The flood which falls with such violence upon the chalky cliffs of Ramsgate and Broadstairs would partially cease, and be diverted into its ancient channel between Thanet and Kent, flowing in nearly a straight course from the South Foreland to Shepway and the Nore. It would be amusing to the antiquarian to sketch upon a chart or map, the probable boundaries of these ancient Roman ports, havens, and estuaries and he will be struck with the perfect coincidences between their ancient localities,

* An idea might be formed by standing on the east pier at Ramsgate and marking the powerful tide which rushes past its bastion.

according to tradition, and the known effect produced by natural causes. He will, I think, be convinced that the change was sudden and not progressive. The mouth of the Wantsumn is now crossed by a bar of soil much higher than the Levels, and its bed filled up with a chaos of chalk, flints, oyster shells, and sand, intermingled with each other quite different to the formation of any natural strata. The sea having thus shut itself out to the north, an accumulation of soil would soon take place, as every tide flowing into the Haven of Sandwich would leave its deposit—mud-banks in a few years would be formed, enclosed, drained, and put into cultivation, of all which most probably we should have had records, but that the destructive wars continually changed their owners. The conquerors, mindful only of getting the lands in possession by their own swords, would bury in oblivion all former and more praiseworthy exertions.

---

## Remarks on the Passage of the Ship "Constance," *Capt. Godfrey, from Plymouth to Port Adelaide, on the composite track of an Arc of a Great Circle.*

22, *Albert Square, Stepney.*

Having seen the account of this voyage in several of the public Journals I have had the curiosity to investigate the merits of both of the tracks spoken of, the one adopting 55° of S. latitude as a maximum latitude, and the other 50°; but as there is no point of departure named as having been adopted by the "*Constance*" (except in latitude), I have assumed one in lat. 21° S. and 30° W., close to the Island of Trinidad, a point which many vessels reach when bound to Australia or India, from all ports in the northern hemisphere, and where sailing on the Arc of a Great Circle may be advantageously commenced. And supposing for the sake of aiding the investigation, that a ship has a fair wind from the assumed point of departure, to her port of destination on the track usually adopted by Mercator's Sailing, and also on the composite tracks alluded to, the difference saved will not be so great as represented, viz: 935 miles as will be shewn by the following courses and distances carefully calculated.

The common track by Mercator's Sailing from the assumed point of departure in lat. 21° S., long. 30° W., to lat. 38° S., and 20° E., is S. 68° 32′ 37″ E., distance 2,788 miles; from long. 20° E., to 115° E., in lat. 38° S., by Parallel Sailing course E., distance 4,492 miles; thence to lat. 35° S., and long. 138° 30′ E., N. 80° 58′ 27″ E., distance 1,147 miles, thus making the whole distance from Trinidad to Adelaide 8,427 miles, on the track of all vessels bound to Australia South.

The composite track by the arc of a Great Circle, assuming lat. 50° 35′ S., as the maximum latitude will reach long. 41° 36′ 30° E. When the ship arrives at that latitude, this distance from the

before assumed point, (on the various courses as shewn in the table of positions herewith) is on the arc 3741 miles, thence to long. 85° E., by Parallel Sailing 1653 miles, and thence to Adelaide or lat. 35° S., long. 138° 30′ E., on the arc 2472 making the whole distance, on this composite track 7866 miles, thereby saving 561 miles on the voyage from the assumed point to Adelaide.

If the higher latitude of 55° S., be taken as the maximum latitude, the composite track by the arc of a Great Circle from the same assumed point of departure to lat. 55° S. and 45° E., will embrace a distance of 3864 miles; from thence to long. 77° 30′ E., by Parallel Sailing 1118 miles, and from that position to lat 35° S., and long. 138° 30′ E., on the arc 2746 miles, making in all 7728 miles, which produces a saving of 699 miles, on Mercator's Sailing track, and 138 miles less than the composite track, having 50° 35′ S., as a maximum latitude. Again, if 45° S., be taken as a maximum latitude, the ship will reach longitude 37° 30′ nearly, when she arrives at the maximum latitude; the distance is 3573 miles, thence to longitude 93° E., nearly 2285 miles, and on the arc from 93° E., and 45° S., to 138° 30′ E., and 35° S., 2147 makes the whole distance on the maximum track 8005 miles, saving thereby 422 miles. Thus shewing that nothing like a thousand miles can be saved even in the highest latitude used here as by the *Constance*. There is no doubt, however, that much is gained by keeping a high latitude in the southern ocean, as strong easterly currents are experienced nearly all seasons of the year, caused no doubt by the almost constant prevailing westerly winds. But much caution is requisite in pursuing a high latitude course from the risk of meeting with ice, and it is for the mariner to judge according to the season, what maximum latitude he should adopt, after passing through the south-east trades, and reaching the neighbourhood of the island of Trinidad.

The courses found are all *true*, and must be corrected for variation, and by laying down these two composite tracks on the chart, the maximum latitude track for 45° may easily be traced from longitude 37° 30′ E. westward, and from 93° E. longitude to the eastward, these two points on the parallel of 45° being when a right angled spherical triangle reaches that parallel, consequently the shortest distance from each of the places of departure and arrival to that latitude on the Arc of a Great Circle. The Great Circle from Trinidad to Adelaide reaches latitude 79° 32′ S., consequently impossible for any ship to navigate on it, and this distance being 7376 miles, exceeds the common track as above described by 1051 miles. I fear I have extended this article beyond the limits of your valuable Magazine, but its insertion may enable navigators to take advantage of what is to be gained by it, and I may at a future period give you a table of positions for the 45° of south latitude in the same form as the accompanying.

JOHN BURNETT.

[Our correspondent's tables would have occupied more of our limited space than we can spare, and we have therefore omitted them, as the several courses can be easily inferred from the chart when the maximum point of

separation is laid down on it, or the courses (to be corrected) for every 5° of longitude can be taken out of Towson's Tables. The unhappy case of the brig *Dart*, in our last number along, with the remarks of Captain Erskine, there alluded to will, we trust, serve as a caution to seamen with reference to the Great Circle course from the Cape, or even in high southern latitudes, more especially as the winds are more favourable in the usual track adopted by our forefathers than that of a higher latitude.]

---

### Laird's Iron Sectional Boats.

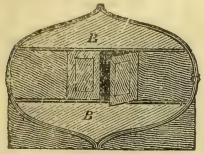
*London, Fenchurch Street,*
*April 15th,* 1850.

Sir.—Some eighteen years ago the readers of the *Nautical Magazine* were informed that an Iron Steam Boat had been launched at Liverpool, built by Macgregor Laird and Co. This was the commencement of Iron shipbuilding, a trade which now employs thousands of artizans, and which will ultimately, and that at no distant period, form the staple ship building trade of this country; superseding timber vessels, as chain have hempen cables, and giving us with our cheap coal and abundant ironstone, a fresh and enduring lease of the sovereignty of the seas.

As you introduced my first born to the notice of the nautical public, I hope you will do me the favour to stand godfather to my last, which is a simple contrivance to enable merchant vessels to carry without inconvenience, boats that, in case of need would save the lives of crew and passengers;—men-of-war, to carry double the number of boats in the space now occupied, discovery vessels to carry large tenders;—travellers to carry boats in the space of a moderately sized trunk;—and merchants trading to the open ports of the Pacific and Indian Oceans to send out lighters and small craft, at the usual rate of freight.

The sketches I send you herewith, are the plans, elevations, and sections of two descriptions of boat, built on the sectional principle. The larger one, is a galley, 70 feet long, and 12 feet beam, to be propelled by negroes with paddles. This boat is for the use of her Majesty's Consul at Fernando Po, to enable him, without reference to calms or baffling winds, to proceed when required to any point within his district, which embraces the Bights of Benin, Biafra and Panasia, a line of coast of 1000 miles in extent, having the beautiful island of Fernando Po in the centre. Commander Bevis, R.N., reports to the Admiralty so fully upon this boat that any of your nautical readers, upon referring to the plan, will at once understand the principle of its construction.

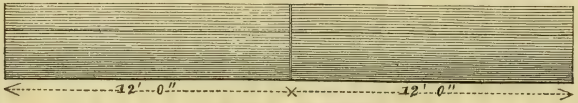
To those of your readers who know Mr. Beecroft, and have been upon the coast, I need not remark upon the advantages, the facility of taking the boat to pieces, and reuniting her in a few hours without the assistance of mechanical or skilled labour, will give that distinguished traveller in his future geographical discoveries. And from my own experience I can truly say that if I had again to ascend any African river, I would




*B, water-tight bulkheads, sections at end of midship sections, shewing the sections, as a deck house.*

ELEVATION OF FORE AND AFT SECTIONS.

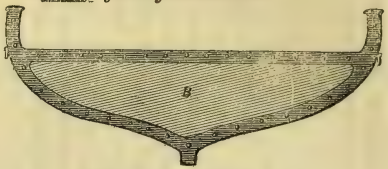
*As a cutter 26 feet long, and 8 feet beam, for ordinary ship's use.*



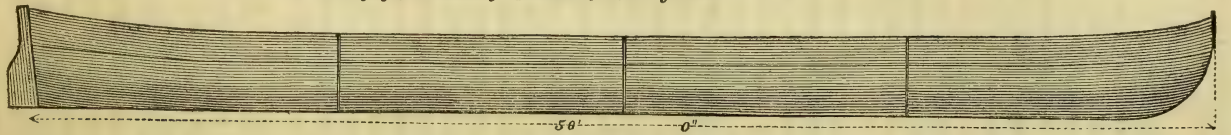

MIDSHIP SECTIONS.

*Stowed on the booms, to be used as store rooms, or water tanks, on the vogage, containing upwards of 3,000 gallons.*

*Cross sections at A, shewing the method of joining the sections.*

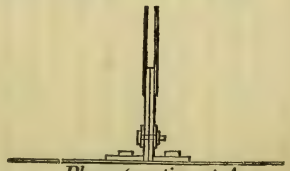



*Scale $\frac{1}{4}$ of an inch to a foot.*



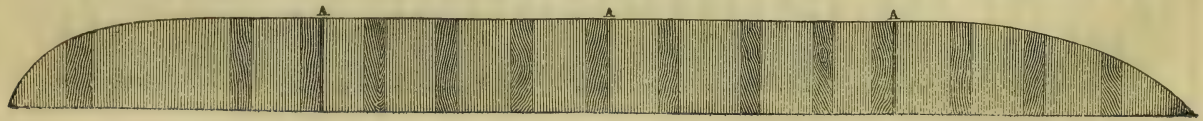

PLAN AND ELEVATION

*Of sectional boats of galvanized iron, for an Emigrant ship of 600 tons, carrying 300 people.*



*Plan of section at A*

*Scale $\frac{1}{8}$ of an inch to a foot.*



prefer three or four of these galleys, each manned and propelled by fifty stout Kroomen, to the best equipped steamers that ever left England.

Commercially, steamers can only pay in civilized countries. Their excessive cost at first, and the constant outlay afterwards has ruined all African trading expeditions into the interior; while galleys of this description would have done all that has been done at a twentieth of the cost, and perhaps 'ere this, have opened a regular and steady trade with the tribes in the interior.

The second boat is building for an emigrant ship. She is in four sections, and can be used as an ordinary boat of 26 feet long, as a barge 38 feet, or a galley of 50 feet, at which size she would carry in safety 150 people.

Fire is the great danger to be apprehended on board emigrant vessels. In an hour after a fire was discovered these boats could be joined and towing astern, and the awful scenes that took place on board the Ocean Monarch, and Caleb Grimshaw avoided. I enclose a copy of the Report of the experienced and gallant officer, superintending Emigration at Liverpool, to the Government Emigration Board, on the advantages of these boats; and as ships carrying them will naturally have a decided preference over those which do not, from that class of passengers going to Australia and India, and quite capable of estimating the value Lieutenant Hodden sets on them, it is to be supposed they will come into general use in those trades.

All Naval Officers who have served on the coast of Africa, and the Indian Seas know the advantages of having large and fast boats. On this sectional plan, a boat 60 feet long, can be stowed in a length of 25 feet on the booms, and be put together in a few minutes by her crew, when her services are required to chase in calms or baffling winds, or to land troops; or, fitted as a tender she could be sent to cruize with a month's provisions and water on board; a simple and cheap way of doubling the efficiency of a blockading squadron.

Droghers, lighters, and small craft of all sorts and sizes, can be sent out to all parts of the world, at the lowest rate of freight, and put together with the greatest facility and accuracy, without the aid of mechanics or skilled labourers.

I may add, that I propose making all boats for passenger-vessels Life-Boats, by using Light's prepared rushes, which are much superior to any system of air chambers, and securing them from oxidation by galvanizing the plates, which also saves the expense of painting.

I hope, Sir, that you will excuse my taking up so much of your valuable space, with the description of such a simple invention: its simplicity perhaps will be its greatest recommendation to a sailor,

I am, &c., MACGREGOR LAIRD.

*To the Editor N.M.*

---

*Government Emigration Office,*
*Liverpool, 8th March*, 1850,

SIR,—Mr. MacGregor Laird having requested me to report on the principle of his sectional boat, I have sufficiently examined her to enable

me to do so, and beg to state for the information of the Board, that I consider the sectional combination, an acquisition for ordinary use in sea-going vessels, and a most valuable one for crowded ships, such as transports, passenger-vessels, &c.

A modification of the proportions of the boat now under consideration, might be rendered available for general purposes. Suppose a vessel supplied with two boats, each of fifty feet long, by eight feet beam, separating the midship section, which divides longitudinally into two parts convenient for stowage, and uniting the fore and after sections, which are secured by bolts and nuts, to ribs of angle iron, forming two cutters for general use, of twenty-six feet long, which fitted as life boats, would be an important augmentation of boat accommodation to that existing at present; and in the event of accidents, where *time* would permit the introduction of the midship section, they would be converted into boats of fifty feet each, the advantages of which in certain circumstances would be obvious.

In comparing the different merits of metal, and wood boats, the advantages that suggest themselves, appear to be as follows, viz:—

Firstly.—Safety in case of fire.

Secondly.—Greater strength relatively to their weight, which as a general rule may be taken as one-third less in favour of metal, with a displacement of one-fifth.

Thirdly.—Always keeping tight, and not subject to warping in hot weather.

Fourthly.—From being so much lighter, they are more easily hoisted out.

Fifthly.—From its being possible to carry on board a small vessel, a metal boat in sections, that would not occupy more space than an ordinary long boat, sufficient to save the lives of crew and passengers.

Sixthly.—These boats composed of galvanized iron, become imperishable, being perfectly free from corrosion.

Between the joints is introduced vulcanized india rubber to keep them tight: this point I have had no opportunity of judging, the boat not being yet afloat.

I am, &c.,

J. E. Hodder, R.N.,
*Government Emigration Officer.*

*To S. Wallcot, Esq.*

---

*Liverpool, 7th March*, 1850.

Sir.—With reference to your letter of the 8th ulto., with its enclosure from Mr. MacGregor Laird, relative to a sectional boat built of galvanized iron, said to be ready for survey on the 16th ulto., (but is not yet in a finished state), and desiring me to take to my assistance some competent officer at Liverpool, who has been on the coast of Africa to inspect this boat, and report upon her efficiency, I beg to report for the information of my Lords Commissioners of the Admiralty, that I have on several occasions inspected the boat, and once in the presence of Mr. Beecroft, the consul at Fernando Po, there being no African officer in this

neighbourhood, and find her dimensions, and efficiency as follows, viz:—

| | | | |
|---|---|---|---|
| Length . . . . | 68 feet | Builder's Measurement | 45 tons. |
| Beam . . . . | 12 " | Total weight of iron work | 4½ " |
| Depth amidships . | 4 " | Do. with woodwork, masts, sails, and all complete. | 8 " |
| Depth forward and aft | 6 " | | |

Thickness of plates $\frac{3}{16}$ and $\frac{1}{8}$ of an inch; displacement at 1 foot water line 7·65 tons, ditto 2 feet 20·89 tons.

There are eight sectional pieces, the heaviest of which is 16 cwt., joined together by angle iron joints, lined with vulcanized indian rubber, the whole being secured by screw bolts and nuts, so that her own crew of forty or fifty men, can carry her over any neck of land, and set her up again.

Her light draft of water is estimated at one foot with her crew, with provisions, water, &c., for the same, at two feet. She is to pull thirty-eight oars, double-banked, fitted with three schooner sails, jib and square-sail, having for night protection iron stanchions covered with thin felt, she is also to be fitted with air-tight galvanized tubes as a life-boat.

From her light draft of water, and general lightness, she is particularly well adapted to take the bars on the coast of Africa, where there is a short breaking sea, and *for proceeding up the rivers, or to go* in *chase of slavers*, as *from her construction she must pull and sail very fast.*

It is proposed by Mr. Beecroft, that this boat should be fitted with a light brass six pounder forwards; and with her crew trained to small arms, she would be fit to go in chase of any slavers in a calm, therefore submit that this class of boat, with increased or diminished dimensions, would be of great service to the African squadron as tenders.

I am, &c.,

THOMAS BEVIS, *Commander.*

[Mr. Laird's Sectional boats above described appear likely not only to answer all the purposes intended, but to combine great strength and durability with economy of space and safety; all of which are important qualities for boats to possess.—ED.]

---

THE QUICKEST VOYAGE TO AUSTRALIA.—*Great Circle Sailing.*

MR. EDITOR.—The remarks of "Sinbad," in your Magazine of last month, and observations on the same subject in different Journals written by practical navigators, incline me to believe that there exists a general misunderstanding of the connection between voyages to Australia and New Zealand, and Great Circle Sailing.

It must be obvious to those who are acquainted with the nature of projections on a sphere, that the Great Circle track cannot be adopted between the South Atlantic and Australia, since it would lead directly through the South Pole. In connection, however, with the "Tables to facilitate Great Circle Sailing," which the Admiralty have honoured me by publishing, I introduced a new sailing, which, for want of a better name, is denominated "Composite Sailing"; the rules of which are given

in page 48. *When the mariner has himself decided on the highest latitude which the ship should be allowed to attain, this sailing enables him to select those courses that must take his ship by the shortest route, within the limits of his maximum latitude.*

Composite Sailing, therefore, is not at all affected by the arguments adduced in connection with the question which has of late so much, and so very properly engaged the attention of practical men interested in our commercial connection with Australia and New Zealand. Let it either be decided the maximum latitude of 50° is safe, or that 45° should be preferred; or, that we should, in accordance with Capt. Erskine's advice, adopt a lower latitude than 40°; still, I presume it would, under all circumstances be alike desirable that the shortest possible route, within the limits of either of these restricted parallels, should be preferred to the irregular and tortuous route which the navigator is liable to adopt, if he fail to make due allowance for the spherical form of the earth.

The practical mariner has observed, that in certain parallels, more favourable winds prevail than on the rhumb track, and consequently he runs to these parallels, not with a view of shortening his voyage so much as with that of obtaining the advantage of winds; and, since the nature of the sphere is not so well understood as it deserves to be, most navigators have been accustomed, when circumstances permit, to run to their respective parallels on the south-east rhumb, which must have been about the route of the *Richard Dart*, since, "by dead reckoning she was supposed to be in latitude 44° 50′ S., longitude 36° 40′ E." If she had sailed on the composite route from the Cape, she could not have sailed within 200 miles of Prince Edward Island, so that I may with truth be allowed to parody "Sinbad's" observations,* and say *had the unfortunate Richard Dart taken the Composite route, the sad event which occurred, would have been avioded*, and, I might have added, the voyage would have been shortened many hundred miles.

But the question as to the track the mariner should adopt, is one which the practical navigator should solve. All that the mathematician can do is to give his aid in shaping his course so as to follow the shortest possible track within the limits of that parallel, which, according to his judgment is the highest he should attain. Without this aid, the parallel of 50° might be adopted, but the distance not reduced below that of a voyage conducted on the rhumb: but, if Composite Sailing is adopted, the ship under the same circumstances sails by the shortest possible route.

Although I possess no practical knowledge respecting the most favourable parallel to be adopted as the maximum latitude in the Austral regions, yet I have been favoured, from various sources, with information on this subject, which may be acceptable to your readers. And, although difference of opinion prevails, still by bringing before your reader the

*As Sinbad is gone abroad, we may briefly observe that we believe him to be right in saying that the great circle joining the Cape and Bass Strait, passes over Prince Edward's Island, as any one may see; certainly near enough to render it a most dangerous course to adopt, and one that would be rejected by a prudent commander.—Ed. *N.M.*

arguments for and against each track, he may be enabled to draw his own conclusions.

The parallel of 51° is the highest that deserves our consideration. In this latitude the wind is favourable, and the route is shorter than those of lower parallels. The principal objection against this route is, that it is within the limits of ice drifts, which at the latter months of the Austral summer (March and April) are occasionally met with as low as the forty-seventh parallel, between the meridians of 40° W. and 100° E.

Between latitude 50° and that of 46°, the composite track is beset with islands which compose Prince Edward's, Crozets, and Kerguleans Groups; and, should not therefore be adopted at any season of the year. The parallel 45° is free from islands, and at all seasons of the year it is beyond the limits of ice. Moreover, the distance is not increased more than 100 miles, which is of small consideration in a region in which the mariner can make good from 180 to 200 miles per diem. And lastly, the parallel of 40° is but 200 miles longer than the shortest practical route, and to compensate for this increase of distance, it presents to the mariner the advantages of a clearer sky and a more defined horizon; advantages of considerable importance in connection with solar, lunar, and stellar observations.

All, however, agree in the establishment of this one point, that, comparatively, little value is attendant on the composite route if the ship touches at the Cape. Between the tropic of Capricorn and Australia, the Cape may emphatically be designated the region of storms. Thus, by striking off into the composite route, as soon as the mariner has cleared the trade winds, he avoids the danger of storm, instead of encountering the peril of rocks, which Sinbad and others erroneously imagine to be necessarily connected with Composite sailing.

I am, &c.,

J. T. TOWSON.

---

"STRAWS FROM CALIFORNIA."—*Progress of the Go-a-head System.*

"Where is Vernon? you ask.—Ah, your dusty old Geographies will avail you nothing on that question. It is not the mount where the ashes of Washington rest—nor any other Vernon than the new town, just christened, at the junction of Feather River with the Sacramento, in Upper California. Four or five rough wood buildings, and a few tents mark the site. The chief business establishments are two or three groceries, where liquor seems to be the main article of traffic. A rival town, named Freemont, with two or three tabernacles for a nucleus, is trying to start into existence, on the opposite bank of the Sacramento; but, having the river between it and the mines, its chances of eclipsing Canton or London are not great. Indeed, the shoal water in the river at Vernon, and the course of the stream, leads an enterprising Yankee to suspect that the true place for the city of this region is two or three miles further down the river, on the eastern bank, where the water is deep, and where the Sacramento makes such a bend, as to approach nearer than any other point to the rich mines of Feather River, and the American Fork. Accordingly, a new town, at that place, is to enter the lists for public favour. The site is a beautiful one.

At what has been so long known as Sutter's Fort, at the junction of the American Fork, and the Sacramento, I was astonished the other day to find

a large and flourishing town, named Sacramento, already built and building. In the midst of heavy oak timber, stores and dwellings of wood and cloth are shooting up in every direction; and, in walking half a mile up the closely built and pretty busy "main street" of the city, you must be careful to step high, or stub your toes every moment against the stumps of bushes and saplings, which only a few weeks ago were flourishing here in all their greenness. Forty or fifty vessels, of all sorts, lie at the river's bank—and probably more business is done at this place than any other in the country, except San Francisco. The warehouses are full of goods, which numerous teams are fast transporting into the mountains.

Three miles below Sacramento, Suttersville, with a few bushes, is struggling for a foothold among cities, but with indifferent prospects of success. Ten or fifteen miles further down you pass the town of Webster, on the eastern bank, where Daniel or Noah (whether the town is named after the statesman or the lexicographer I known not,) might see a couple of log houses standing as the representative of the family name.

Still sailing down the crooked but beautiful Sacramento, fifteen miles above its mouth, you pass the beautiful site of Suisun on the right bank—a city as yet without inhabitants.

At the junction of the Sacramento with Suisun Bay, on the right hand, is the city of Montezuma (a beautiful name for a town). A single building marks the spot, though the town is two years old; and even that tenement, like the "halls" whose name it assumes, has been, I believe, a long time deserted.

Opposite Montezuma, at the junction of one of the mouths of the San Joaquin with Suisun Bay, is the town site politely called "New York of the Pacific,"—a name somewhat after the taste of "Praise-God Barebones", and other similar appellatives of the days of Cromwell. After some months puffing, it boasts a tent and an unfinished shanty.

On the north side of the straits of Karguines, is Benicia—a town beautifully located and possessing greater commercial advantages than any other point on the Bay of San Francisco. Ships of the largest class lie close in shore. It is so situated as to command the commerce of the Sacramento and San Joaquin rivers, and the immense business of the gold region. It is the rival of San Francisco; and in natural advantages, is altogether a superior location to that, for a great commercial city. But San Francisco has got the start in point of numbers, capital, and notoriety; and it may be some time before Benicia becomes as large a place as its position would otherwise make it. There are, already 40 or 50 houses up. Two steamers are at present building; and the shipping, which must necessarily come here, owing to the crowded state of San Francisco, will doubtless cause this place to grow rapidly. The climate is beautiful and salubrious, like that of Pueblo de San Jose, Sonoma, and other places so situated inland that the chilling breezes of the coast become tempered to a genial softness —while still further inland, as the vallies of the Sacramento and San Joaquin, these breezes become heated by a continually unclouded sun shining on a broad region of level country, until they produce a kind of weather almost unbearable, and often send an honest Fahrenheit's thermometer, in the shade, up to 100 or 120. With such a temperature, at midday, alternating with cool nights, in a region of almost interminable marshes, formed by the overflow of the rivers, it is not to be wondered at that these two extensive vallies are an immense hot bed of intermittent and remittent fevers, and other various ills that flesh is heir to.

If doctors can annihilate disease there will be little sickness in the country, this season—for the profession is swarming. But, if all the doctors here are to do a tolerable business, the people are much to be commisserated. Yet,

numerous as they are, it is to be feared they will all find ample employment before summer is over. The sickly climate of the great vallies—in which much of the business connected with the mines must be transacted,—together with the beastly intemperance that prevails, and the exposure of health in various ways, will be sufficient to cut down men even of iron constitutions and the most vigorous health. Hundreds, who have come from abroad for gold, will leave their bones within the limits of this territory.

So much for the new cities of the Sacramento valley. The rivers are down and gold digging becoming profitable. One man showed me 3,000 dollars, which he had dug in twenty-nine days, and that without a washing machine. Four individuals, in company, also dug, in that time, 12,000 dollars.

The name of this place will remind you of the good woman, who, bent on giving her boys scriptural names, called the first four in order, Matthew, Mark, Luke, and John; and when the fifth youngster made his appearance to be named, resolutely dubbed him "Acts of the Apostles."

The Astor House here is less crowded than the granite prison looking structure on veritable Broadway; and the other building in the city, a small tent looks less aristocratic than one would think consonant with the euphonious cognomen in which the embryo metropolis rejoices.

Apropos, of the new style of architecture to which California has given birth. You see it in perfection at Sacramento city; nearly as perfect at Stockton and San Francisco. The like of it was never seen on earth before, and it will take the discovery of a new gold region and a new gold fever to give birth to the like of it again. To describe it artistically is impossible, it has been named in none of the standard books. But the way a house or store is erected, is somewhat in this wise:—

You take a common inch board, split it into strips, nail the pieces together, and lay them on the ground as sills. Other strips of boards are set upright, and others nailed on for plates. Two frames of similar slates, of the size of the two sides of the roofs, are covered with cotton cloth or canvass, and then placed, whole on the building, made fast by a few nails, and the evidence is covered. In a trice the whole outside of the building is likewise covered with cloth, and a sort of tabernacle, half house, half tent, stands ready to receive a family or two of dwellers, or a cargo of goods.

The rapidity with which these structures flash into existence fairly bewilders one. Go out of town in the morning by a familiar street, and when you return at night by the same thoroughfare the whole aspect of things is so changed by the new houses built and building, that you almost have to inquire your way home.

At San Francisco, my own eyes have seen men laying the foundation of a house as I was on my way to breakfast, and at tea time I saw the edifice complete and filled with an assortment of goods; and, doubtless, before bed time the owner had cleared enough to pay the expense of building the store-room twice over. This was at San Francisco, mind you, not "New York in the Pacific." At Sacramento city something of the kind may also be witnessed.

These unique houses are used for all sorts of purposes. Some are large wholesale establishments, more retailing shops, more still, grog-shops, or gambling shops; or, in fact, both, the two vices being to each other as the Siamese twins. If you see the American flag fluttering over one of these tabernacles, be sure it is a drinking and gambling hole, a desecration of the glorious stars and stripes almost equal to that of raising them over a foul tent in the mines, and persuading the wild Indians it was for their special benefit and protection, if they should only bring in, freely, to its occupants, their gold and squaws. Such things have been, shameful to tell.

How these frail tenements will stand the frosts and rains, of winter, time and cold fingers, and damp lodgings, will reveal.

August 1st., meetings were held, in the several districts of the country, to elect members to a convention, to meet in Monterey, Sept. 1st to form a State Constitution. Such a constitution can be formed and ratified by the people, and a governor, two senators, and a representative to congress elected in season to have the constitution ratified, by congress, and the representatives and senators take their seats before the 1st of January, 1850. The prospect of a government, here even so soon, is cheering to every good citizen. Mob law is at present, the substitute for every law. In many cases, its practical working may accord with justice. But, in the nature of things it cannot do so long, punishment is unequal; desperadoes who know that if they escape immediate arrest, there is no regular authority to follow them up and punish them twenty years hence, will not be restrained by mob law. A short time since, a band of armed villains, New York loafers, calling themselves "Hounds", (rightly enough,) paraded San Francisco, robbed, beat, bruised, and insulted peaceful citizens, *ad libitum*, and committed crimes that in any good government would have left them dangling between earth and heaven. How were they punished? The ringleader, sentenced to be carried in a vessel, free of expense, back to his friends in the United States. Nothing worse? No! Cause why, some other hound or hounds might, on a windy night, touch the north-west corner of the city with a fire brand; and, in a flash, the glory of the great emporium would be like that of Tyre, an empty sound for departed substance. How can even handed justice be distributed when the judge may one minute pass sentence on the culprit, and the next receive a bullet in his body, from the culprit's friends or accomplices?

At Sonoma, a man, for stealing, received fifty light lashes. At Stockton, a week since, a man stole 400 dollars, and was immediately tried and hanged. The Alcalde of the place, I am told, did not sanction the execution. In the mines numerous robberies have taken place, and several mock hangings been got up in the way of inquisition or of punishment. Such mockeries and excesses of justice must ultimately be mischievious.

Thousands of Mexicans, Chilenos, and Peruvians, have been in the mines this season; and their expulsion, by the Americans, has produced some excitement; but, as yet, no violence. Looking upon these foreigners as public robbers, (as they are,) the Americans held meetings, warned them to be off on short notice, and thousands of them have already gone peaceably back to their homes. The secret of their yielding so quietly is in the fact they have dug immense quantities of gold which they are afraid of losing if they get into any open collision with the Americans. It is estimated, by highly competent judges, that these foreigners, chiefly Sonoranians from Mexicans, will have carried out of the country, the present season, not less than 15,000,000 dollars, a nice little sum for armed Mexicans to come and take out of Uncle Sam's job, to the detriment of sundry of Uncle Sam's own progeny, who are apt to look on gold with yearnings about as vehement as the deposits in these mountains are at present capable of satisfying.

A nice little steamer for the rivers, sixty-two feet long, and fifteen horse-power, is just ready to launch at Benicia, and will be the first river steamer afloat, and the first put together in this country. She will run from Benicia to Springfield, a new city growing up on the Sacramento, three miles below Feather River.

---

GREAT FLOOD IN CALIFORNIA.—A letter just come from Philadelphia contains the following passage:—"Those tremendous scourges, fire and water, have recently proved very destructive in California. By the last arrival, we were informed of the burning of one-half of the city of San Francisco. And now

we have, by the arrival of the Alabama at New Orleans, news from San Francisco fourteen days later to January 15th, the principal item of which is, the submergence by a flood, of the city of Sacramento. Only one house, and that built on raised poles, was above the water, which was three or four feet deep. Immense herds of cattle have been drowned, the inundation extending over the entire valley of Sacramento, and varying from twenty to fifty miles in breadth, from the Sierra Nevada, to the coast range of mountains. Much misery, starvation, sickness, and death, must be the natural results of this great overflow. The loss of property at Sacramento city, is estimated at 1,000,000 dols. The suffering of the inhabitants there, are described as dreadful. But one writer consoles himself by stating that this great flood, while it destroys much property "will wash out the gold in immense quantities." The Alabama has brought 400,000 dols. worth of gold dust on freight. Her mails will not reach in time for the English steamer, all our news from her being per telegraph from New Orleans. At Stockton the Americans at the mines had been attacked by bands of Chilians. Several were killed on both sides, and a number of Americans, who had been taken prisoners, were afterwards released. The excitement at San Francisco even was great on this subject, and all the accounts say that the Chilians will be attacked in their turn, and expelled from the country. Such a course would probably lead also to the expulsion of other foreign (Spanish race) gold diggers."

---

### TREACHERY AT TIMOR LAUT, A CASE OF 1841.—*Mansion House.*

A wretched looking, broken down, and wounded seaman, named Joseph Forbes, was brought to the justice-room, and introduced to Alderman Pirie by Mr. Brooks, the ship-owner of Broad Street, who is one of the directors of the London Docks, as an object of charity, from the strange and intense sufferings he had undergone for a series of years.

Mr. Brooks said that Forbes had been lately brought from Sydney to this country in one of his (Mr. Brooks's) vessels, and had been kept at his expense for six weeks, during which the unfortunate man had been in London, where medical aid of the highest kind had been administered almost in vain to his case. The circumstances in which the man had been placed for the last sixteen years, (and of the accurate veracity of the statement there was no doubt) would be best detailed by himself. There had been some instances, of similar horrors, but he was not aware of any of such long duration.

The seaman then made a statement, of which the following is the outline: "In the year 1822, I being then a boy, sailed from London in the schooner *Stedcombe*, with a crew consisting of thirteen persons, bound for Melville Island, on the North coast of New Holland. The vessel, which was a fine one, having discharged her cargo at Melville Island, proceeded to the island of Timor Laut, for the purpose of procuring buffaloes, and the natives came on board the schooner, appearing to have the most friendly disposition toward us, partook of food with the captain, and brought food and vegetables with them as a proof of their friendliness. There was nothing to interfere with this feeling, which seemed in every respect to be mutual. An arrangement was concluded with the natives for the supply of a large cargo of buffaloes which they stated were ready to be shipped, and the captain left

the vessel in his boat with all the crew (amongst whom was my brother) with the exception of myself, John Edwards, another boy, the cook, and a seaman, with the intention of accomplishing the traffic. Soon after the crew landed, to my great horror, I saw them attacked by a number of the natives and savagely murdered. We, who were on board, looked forward for nothing less than sharing the awful fate of our friends, and a few minutes after the murder of the crew, the murderers came over to the schooner in vast numbers and seizing the cook and seaman, cut their heads off and threw their bodies over board. Edwards and I had taken to the rigging and witnessed the murders on the deck from thence. The natives pursued us, and after a short while we descended in an exhausted condition, convinced that our lives would also be taken. We were, however, but mere boys, and they did not use their weapons against us. They stripped us, put us into a canoe, and took us to the beach, where they compelled us to walk over the bleeding trunks of our poor shipmates, whose heads had been cut off and conveyed to the village. The schooner after having been plundered of every thing of the least value, was hauled on shore and burnt. Edwards died about three months after this dreadful transaction, leaving me the sole survivor of the *Stedcombe's* crew, to linger out all the horrors and miseries of the most frightful captivity.

Alderman Pirie.—They merely spared your life then? They shewed you no kindness?

The Seaman.—During the sixteen years of my captivity they kept me to severe labor, such as cutting timber, cultivating yams, and other hard employment. In their wars I was compelled to accompany them, and I received two severe wounds, one in the neck, the other in the wrist, from the former of which I now suffer most bitterly.

Alderman Pirie.—Did you not see any ship touch upon the island of Timor Laut in all that time?

The Seaman.—Whenever a ship appeared off the island I was taken to a cavern, and there bound by the hands and legs. They no doubt supposed that if by any chance I succeeded in coming in contact with any of my own countrymen, I should mention all that had taken place, and bring down vengeance upon them. They bound me so tight as to cause wounds on my legs, and absolutely to stop the circulation of my blood. The frequent repetitions of this cruel treatment made me the poor cripple you see, with a constitution destroyed, and limbs which can scarcely perform any of their offices.

Mr. Brooks said, that Sir Gordon Bremer, of H.M.S. *Alligator*, was understood to have made an attempt to rescue Forbes, a report having reached Sydney that an Englishman was detained on the island.

The seamen said he believed that such an attempt had been made, but he was bound hand and foot at the time. It was to Captain Watson, of the trading schooner *Essington* of Sydney, he was indebted for his deliverance from the dreadful slavery amongst the natives of Timor Laut, and much ingenuity was necessary to be used on the occasion as well as resolution. Capt. Watson having been assured that an Englishman was amongst the natives, appeared off the island in March 1839, and the natives proceeded to the vessel with their usual appearance of kindliness and goodwill. They had however, as was evident from their conversation when the vessel approached the island, determined to seize her, and if that had been accomplished, there could have been no doubt, as to the fate of the crew. Every one of them would have been murdered. In order to accomplish his object of releasing the captive, Capt. Watson used the following stratagem:—He closed his ports, strongly armed his crew, and sent them below. He then allowed the natives in the first canoe to get on board, and finding one

of the principal chiefs of the island amongst them, peremptorily demanded the white man. The chief was taken completely by surprise, but he positively denied all knowledge of any stranger. The captain then ordered up his men, and compelled the natives to leave the ship, detaining only the chief, whom he was resolved never to deliver up, without the exchange he required. Still the chief persisted in declaring that no white man was on the island, and it was not till the afternoon of the next day, when, no doubt terrified by the threats of the captain and boatswain, and the formidable appearance and conduct of the armed crew, the savage admitted that his people had a prisoner, and consented to give that prisoner liberty upon obtaining his own. The order was then issued by the chief, and he (Forbes) was taken from the cavern in which he lay bound, and was once more placed amongst human beings. The chief was then allowed to descend into his canoe and depart, but the crew were very desirous when they heard of the bloody cruelty of the natives to have a fling at them.

Alderman Pirie.—My poor fellow, you must have found the change very great?

The Seaman.—Indeed it was sir, but it was almost too late. The kindness of Capt. Watson and his crew was very great, but I never had a moment's health, my strength is entirely gone. I was put into the hospital at Sydney, and treated with the greatest care for fourteen months. All the people there were most kind to me.

Mr. Brooks.—He has been here six weeks, and has been attended constantly by medical men, but he has not been able to come up to the Mansion House before this day. My object in attending here with him, is to solicit the Lord Mayor's exertions in his favour. He never will be able to work a single stroke, and it occurred to me that the public sympathy could, through the press, be enlisted in this poor creature's service. The facts, which are frightful in the detail, have been stated with simplicity, and without (as must strike everybody) the least exaggeration.

Alderman Pirie.—It is a singular fact, that I, who am thus addressed on this occasion, was the very person who sold the schooner just before she went upon her fatal voyage. I am much gratified at being present when such an application is made. It will give me the most sincere pleasure to receive subscriptions for the benefit of the sufferer, and I will commence myself with £5. I shall answer for the readiness with which the Lord Mayor will aid in the cause, and that his lordship will be happy to receive contributions from the benevolent.

Mr. Brooks also subscribed £5, and intimated that he should feel greatly honoured by receiving subscriptions.

The seaman returned thanks, in a voice that "piped and whistled in the sound," and with tears trickling down his pale and withered cheeks.

Subscriptions will be received, most thankfully on behalf of this unfortunate individual by the Lord Mayor, Mr. Alderman Pirie, and Mr. Robert Brooks, Saint Peter's Chambers, Cornhill.

[We insert the foregoing with the view of making the case known as extensively as possible, that similar occurrences may be prevented. We are happy to learn that the appeal made to the public in this poor fellow's favour was successful to a certain extent, and that the greater portion of the money collected for Forbes is held for his use, as he may require it in a few years hence. His friend and benefactor Mr. Robert Brooks (of St. Peter's Chambers, Cornhill) says "I have had the means of employing him in a little work, the last nine years which just about maintains him, and I find him a very honest fellow." We may add in conclusion that should any of your readers be inclined to add to this poor fellow's comforts when he is past work, their commiseration will be well secured in the hands of Mr. Brooks.—Ed.]

## Examination of Masters and Mates.

A List of the Masters and Mates in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, since the 31st of January last.

### Masters.

[Those marked *m* served last as Mates.]

| Names. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined | When. |
|---|---|---|---|---|---|---|
| Grant, J. B..... | 1st | 1812 | Land of Cakes, 500 tons .. | ..... | Leith | Feb. 1st |
| Cameron, J..... | 2nd | 1821 | Ceres, 88 tons..... | 100772 | — | — — |
| Liddle, Alex.... | 2nd | 1821 | Alexander Liddell, 165 tons | 116341 | — | — — |
| Kerr, P. R. .... | 2nd | 1824 | Urania, 173 tons .....*m* | 413873 | — | — — |
| Stubbs, W..... | 2nd | 1824 | Maria, 1014 tons..... | 21903 | Liverpool | — 2nd |
| Harper, W..... | 2nd | 1815 | Emerald Isle, 270 tons....*m* | 272665 | Hull | — — |
| Butcher, H..... | 2nd | 1822 | Coldstream, 760 tons.....*m* | 21028 | London | — 4th |
| Marshall, J. E.. | 3rd | 1823 | Thomas Henry, 361 tons... | 16789 | — | — — |
| Blyth, H..... | 2nd | 1823 | Betsy, 99 tons ..... | ..... | — | — 7th |
| Holdsworth, J.J. | 2nd | 1821 | Susan Crisp, 290 tons..... | 276644 | — | — — |
| Adam, W..... | 2nd | 1822 | Jane Pirie, 427 tons .....*m* | 393586 | — | — — |
| Duffill, W..... | 2nd | 1807 | Caroline, 425 tons ..... | 16543 | — | — — |
| Jarvis, T. R.... | 2nd | 1826 | Falcon, 220 tons..... | 10638 | — | — — |
| Farmer, T..... | 2nd | 1812 | Chieftain, 387 tons .....*m* | 28916 | — | — — |
| Berry, J..... | 2nd | 1823 | Elizabeth, 427 tons.....*m* | 176286 | — | — — |
| Keen, T..... | 2nd | 1822 | Ratcliff, 739 tons .....*m* | 74415 | — | — — |
| Simmons, G. W. | 2nd | 1826 | Essex, 211 tons.....*m* | 45541 | — | — — |
| Watson, R..... | 2nd | 1826 | Quintin Leitch, 632 tons..*m* | 257642 | — | — — |
| Renner, F. W... | 2nd | 1823 | Fortitude, 197 tons .. ...*m* | 6443 | — | — — |
| Lean. J..... | 2nd | 1808 | Marmion, 411 tons..... | 19115 | — | — — |
| Higgins. D..... | 3rd | 1800 | Mary Graham, 400 tons..*m* | 19539 | — | — — |
| Foreman, J. S.. | 2nd | 1819 | Schiedam, 220 tons .....*m* | 170998 | S. Shields | — — |
| Taylor, J..... | 3rd | 1817 | Dr. Winterbottom, 145 tn*m* | 49840 | — | — — |
| Roberts, W..... | 2nd | 1811 | John Bright, 233 tons..... | 171605 | Liverpool | — 8th |
| Bray, A. J..... | 2nd | 1817 | Palmerston, 231 tons ..... | 70411 | — | — — |
| Hoodless, G..... | 1st | 1809 | William Dawson, 481 tons.. | 14466 | Leith | — — |
| Galloway, D.... | 2nd | 1815 | Branch, 78 tons..... | ..... | — | — — |
| Wylie, W..... | 2nd | 1818 | Swan, 830 tons..... ..... | ..... | Liverpool | — 9th |
| Williams, W.... | 2nd | 1807 | Arab, 176 tons .....*m* | 407004 | — | — — |
| Woodcock, J.... | 2nd | 1800 | Supply. 95 tons..... | ..... | — | — — |
| M'Donald. D.... | 2nd | 1823 | Ratcliff, 739 tons .....*m* | 29329 | London | — 11th |
| Simkin, H. H.... | 2nd | 1818 | Celt, 302 tons.. ..... ...*m* | 168661 | — | — — |
| Burrows, J..... | 2nd | 1819 | Fairy Queen, 99 tons..... | 376813 | — | — — |
| Bridges, G.H.G | 2nd | 1816 | Windsor, 800 tons .....*m* | 23142 | — | — 12th |
| Perkins, W..... | 2nd | 1807 | John Ker, 618 tons..... | 342871 | Glasgow | — — |
| Smith, J..... | 2nd | 1822 | Cressida, 568 tons .....*m* | 191674 | — | — — |
| Thompson, R.D. | 2nd | 1827 | Lune. 287 tons .....*m* | 385489 | S. Shields | — — |
| Smith, N ..... | 2nd | 1817 | Margaret, 275 tons .....*m* | 57820 | — | — — |
| Speight, J..... | 3rd | 1808 | Gazelle, 338 tons .....*m* | 137845 | — | — — |
| Gibson, D..... | 2nd | 1825 | Eliza, 170 tons .....*m* | 82458 | Dundee | — 13th |
| Banks, T. M.... | 2nd | 1828 | Venus, 136 tons..... | 70555 | — | — — |
| Hockey, J..... | 3rd | 1822 | Providential, 170 tons....*m* | 152605 | London | — 14th |
| Smith, J..... | 3rd | 1811 | Emerald, 311 tons..... | 9022 | — | — — |
| Brown, G. A.... | 3rd | 1822 | Ranavalo Manjaka, 127 tons | 390259 | — | — — |
| Adams J,..... | 3rd | 1818 | Ann & Isabell, 256 tons..*m* | 164469 | S. Shields | — — |
| Brown, D..... | 2nd | 1818 | Meteor, 399 tons ..... | ..... | Hull | — — |
| Brown, J..... | 2nd | 1820 | Ross, 383 tons ..... | ..... | — | — — |
| Martin, R. H... | 2nd | 1820 | Prince Regent, 394 tons.... | ..... | — | — — |
| Timcke, G. H... | 2nd | 1812 | City of Rochester 413 tons | 6097 | London | — 13th |
| Mills, W. D,.... | 2nd | 1817 | Asia, 455 tons..... | 5205 | — | — — |
| Mitchell, W.... | 2nd | 1825 | Daphne, 170 tons.....*m* | 252659 | — | — — |
| Boyd, J..... | 2nd | 1812 | Jane Ewing, 456 tons.. .*m* | 203895 | Glasgow | — 19th |
| Simpson, J. A.. | 1st | 1823 | George, 676 tons ..... | 97364 | Leith | — — |
| Gourlay, C..... | 1st | 1822 | Caledonia, 736 tons..... | ..... | — | — — |
| Milton, J. G.... | 2nd | 1822 | Belle Alliance, 676 tons..*m* | 25774 | London | — 21st |
| Parsons, R..... | 2nd | 1805 | Eliza Frances, 294 tons.... | ..... | — | — — |

| Names. | Class. | Date of Birth. | Present or last Service. | No of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Pearson, G..... | 3rd | 1809 | Lloyd's, 403 tons ..... | ..... | London | Feb 21st |
| Bramston, J.... | 2nd | 1819 | Pestonjee Bomanjee, 595 *m* | 325531 | —— | — — |
| May, J..... | 3rd | 1805 | Agnes, 691 tons .....*m* | 254691 | —— | — — |
| Paine, W. C.... | 3rd | 1816 | John Bull, 345 tons.....*m* | 989 | —— | — — |
| Davison, S. .... | 1st | 1815 | Edward, 489 tons..... | ..... | Newcastle | — — |
| Graham, W. P.. | 2nd | 1816 | Minerva, 337 tons..... ... | ..... | —— | — — |
| Ford, W. W..... | 3rd | 1826 | Ann, 144 tons .....*m* | 198369 | S. Shields | — — |
| Roxby, W. J.... | 2nd | 1808 | Essex, 211 tons..... | ..... | London | — 25th |
| Smart, G. E... | 2nd | 1821 | Baretto, junior, 522 tons*m* | 128028 | —— | — — |
| Cowart J..... | 2nd | 1812 | Columbine, 607 tons ..... | ..... | —— | — — |
| Davies, J..... | 1st | 1812 | Lady Charlotte Guest, 200 | ..... | Liverpool | — 26th |
| Duncanson, J... | 1st | 1822 | Monarch, 551 tons ..... | ..... | Leith | — 27th |
| Moodie, D..... | 1st | 1818 | Senegal, 441 tons..... | ..... | —— | — — |
| Harris, J.... | 2nd | 1827 | Aurora, 134 tons .....*m* | 64500 | Dundee | — — |
| Spence, J..... | 2nd | 1809 | Prince Albert, 347 tons..*m* | 25790 | London | — 28th |
| Castle, J. S..... | 2nd | 1823 | Minerva, 987 tons .....*m* | 27747 | —— | — — |
| Brown, A ..... | 3rd | 1814 | Emma Eugenia, 383 tons*m* | 435940 | —— | — — |
| Purvis, H..... | 2nd | 1822 | Vigilant, 226 tons.....*m* | 74382 | S. Shields | — — |

MATES.

| | | | | | | |
|---|---|---|---|---|---|---|
| Millar, J. M.... | 1st | 1824 | Malacca, 700 tons..... | 13243 | Leith | Feb. 8th |
| Clarke, J..... | 1st | 1823 | Dædalus, 225 tons..... | 383615 | —— | — — |
| Golding, H..... | 2nd | 1828 | Euphrosyne, 437 tons..... | 327937 | London | — 12th |
| Leach, W. C.... | 2nd | 1827 | John Woodall, 379 tons.... | 272872 | Plymouth | — — |
| Drevar, F..... | 2nd | 1827 | Lady Mary. 253 tons ..... | 28817 | London | — 14th |
| Mackie, D..... | 2nd | 1829 | Oak, 74 tons ..... | 118632 | Dundee | — 15th |
| Barr, J..... | 2nd | 1823 | Jane Ewing, 456 tons..... | 113562 | Glasgow | — 19th |
| Guthrie, J..... | 1st | 1827 | Mary Muir, 357 tons ..... | 195327 | Dundee | — 20th |
| Babington, W... | 1st | 1825 | 29th May, 240 tons ..... | 377386 | London | — 21st |
| Laing, T..... | 2nd | 1830 | Premium, 239 tons..... | 189731 | Newcastle | — — |
| Cargill, W..... | 1st | 1829 | Dwina, 180 tons ..... | 189852 | Dundee | — 22nd |
| Buckland, J.... | 2nd | 1823 | Great Western, 1775 tons.. | 311676 | London | — 25th |
| Hingston, J.... | 2nd | 1827 | Thomas Lowry, 409 tons.. | 130790 | —— | — 26th |
| White, A..... | 2nd | 1829 | Mars, 192 tons ..... | 132668 | Dundee | — — |
| Kitton, F. H.... | 2nd | 1831 | Benjamin Buck-Greene, .. | 31689 | Gloucester | — — |
| Gilson, J. C..... | 2nd | 1827 | Diana, 574 tons..... | 213481 | London | — 28th |
| Scarlett, R..... | 3rd | 1826 | Eliza, 682 tons ..... | 387026 | —— | — — |
| Teinder, J..... | 2nd | 1826 | Lord Seaton, 440 tons..... | 326605 | Dundee | — — |

River Ribble.—Port of Preston.—Capt. Williams, R.N., has arrived at Lytham with an assistant officer, for the purpose of making a new survey, by orders from the Admiralty, of the River Ribble, with the adjacent coasts and banks to the northward of Formby. This most desirable work is rendered necessary by the changes which have taken place since the survey by Capt. (now Sir) E. Belcher, in 1836, and will lead to the publication of more accurate charts and sailing directions, which may be relied upon. Those now in general use by the masters of trading vessels are grossly defective and erroneous as to the Ribble, and they have been very injurious to the commerce of this port, and deterred strangers from visiting it. The actual state of this fine river, will soon be made known to the public from indisputable authority, together with its capabilities of further improvement in its navigation, if the works be placed under the superintendence of a skilful and experienced nautical engineer.

## Collisions of Merchant Shipping.

31. *Hartlepool, Feb. 1st.*—The *Emerald*, Carr, arrived at Hartlepool, Feb. 1st, having been in contact the previous day with the Newark light vessel.

32. *Falmouth.*—The *Naomi* barque, Cothay from London for China, lost

bulwarks, main-top-gallant-mast, mizen-top-mast, &c., having been in contact in the Downs, with it is supposed, the *Lady K. Barham.*—*Feb. 2nd.*

33. *Ramsey, I M., Jan. 30th.*—On Monday morning last, as the smack *Snap* Connin, from Whitehaven, of and for Castletown, was lying at anchor in Ramsey Bay, it then blowing a gale from the south-east, she was run into by sloop, name unknown, which sunk her The master got to Whitehaven in the small boat, on Tuesday morning, and thinks the other two men are on board the sloop.—*Feb. 2nd.*

34. *Yarmouth, Norfolk, Feb. 3rd.*—The *Carron*, Coveney from Shields for Carthagena, is in the roads with loss of topmast, an anchor, part of chain, and other damage, having been in contact.—*Feb. 4th.*

35. *Report of the Brigantine Matthew King, Murchiee.*—Off Lamlash, 1st. inst., about 11 o'clock, P.M., blowing a gale from the west, under close sail, was run into by the *Thetis*, (*s*), for Belfast; stove in our bows and carried away everything fore and aft on the starboard side: expected we should founder every minute. The *Thetis* never made any exertion to see if we wanted any assistance, but proceeded on her course.—*Feb. 4th.*

36. *London, Feb. 5th.*—To the Editor of the *Shipping and Mercantile Gazette.*—Sir, A collision occurred on the 25th ult., about 2 A.M. off Southwold, between the brig *Pioneer*, of North Shields, and the brig *Henrich*, of what nation I know not; but I suppose, by appearance, she must have cork, or other light cargo. A young man was in the act of jumping on board from the *Pioneer* to ascertain where she belonged to, and they took up weapons to prevent him: that was the way he saw the ship's name on the quarter-board. The damage done to the *Pioneer* is very considerable.—Yours, &c. JOHN SCOTT, *Master of the Pioneer.*—*Feb. 5th.*

37. *Halifax, Jan 25th.*—The brigantine *Star*, put into Manideau (C.B.), 4th inst., after being in contact with the *Emperor*, Landry, from London.—*Feb. 5th.*

38. *Bristol, Pill, Feb, 7th.*—The American ship *Fauchon*, Pike, of Newburyport, from Liverpool for Boston, was in collision with the *Bonanza*, Moodie, of Dundee, for Manila, on the night of the 4th inst.; the former has carried away foremast, lost an anchor and chain, had her quarter stove in, and very considerably damaged. During the collision the master, mate, and five seamen belonging to the *Bonanza*, jumped on board the *Fauchon.*—*Feb. 8th.*

39. *Report of the brigantine Gipsy, Feb. 5th.*—Tusker bearing N.E., distant fifty miles, passed close to an American ship with her foremost and bowsprit gone, and a Scotch barque, with loss of mizenmast and fore main-topmast; they had been in collision the night previous, and were then steering for Liverpool. Experienced a rough passage, wind generally south and south-west.—*Feb. 16th.*

40. *Whitstable, Feb. 17th.*—The brig *Hope*, Nicholls, of Exeter, was in collision on the night of Friday, the Shipwash bearing about one mile W.N.W., with the *Robert and Betsy*, of Sunderland, when the *Hope* sunk almost immediately. The crew, with the exception of one young man, a native of Lympson, who, it was supposed was killed in his berth, saved themselves on board the other vessel, and were brought in here this afternoon.—*Feb. 18th.*

41. *Dover, Feb. 17th.*—The *Francis Philip*, Le Gresey, from Jersey for Hartlepool, with loss of fore and maintopmasts, jibboom and mainboom, and with damage to starboard bow, having been in collision with a ship in the Race of Alderney.

42. *Portsmouth, Feb. 17th.*—The *May Queen*, Sayers, from London for Hobart Town, has put in here leaky, and with cutwater started, having been in

contact with a schooner at 3 o'clock this morning, off St. Catherine's.—*Feb. 18th.*

43. *Southwold, Feb.*—The *Betsey*, sloop, of Hull, for London, was off this port to day, with her mast gone, having been in contact with a light brig during the night, but has rigged a jury-mast and is about proceeding.—*Feb. 18th.*

44. *Lowestoft, Feb. 16th.*—The barque *Metropolis*, Penny, of London, from Sunderland for Hong Kong, about 12h. 30m. this morning, wind being at W.b.S., blowing hard, reaching in towards Winterton Ness, crew reefing topsails at the time, was ran into by a large steamer, steering to the N., which struck her under the lee bow, carrying away bowsprit, cutwater, and figurehead (which was left on board the steamer,) and doing considerable other damage; ship being unmanageable, the best bower was let go, and at daylight took the assistance of a yawl's crew, and afterwards of a steam tug, the wind increasing into a gale from the W.N.W., signalized and procured the assistance of another steam-tug, by whose united assistance the ship was towed saf ly into this harbour about 3h. P.M. The master complains that the steamer after the collision, went off at full speed, regardless of his entreaties to stay by him.—*Feb. 18th*

45. *Yarmouth, Norfolk, Feb. 16th.*—The screw-steamer *Cameron*, Patrick, of and from Hull, for Rotterdam, put into the roads to day with funnel knocked on one side, and other damage, having been in contact with a barque, the barque had her bowsprit carried away, and proceeded southerly.—*Feb. 18th.*

46. *Salcombe, Feb. 17th.*—The barque *Florida*, Harvey, from Newcastle to Algiers, and the *Helen Martin*, Doucharty, of Dumfries, from Lisbon to Leith; got into collision on the 14th instant, about 1h. A.M., in lat. 47° 58′, it being very dark with a heavy squall; wind at N.W.b.W. at the time and could not see any distance. Never observed anything near them until the vessels were foul of each other; both vessels were under close reefed sails, with a heavy sea at the time. The crew of the brigantine got safe on board the barque, with the exception of one man, who slipped between the vessels and was drowned; his name was Robert Fisher, a native of Dumfries. The crew of the *Helen Martin*, had not time to save any of their clothes more than they had on at the time of the collision, as the vessel was in a sinking state: and they believe she went down immediately, as they could not see her when on board the barque about ten minutes after leaving her. Mr. Harvey and Mr. Doucharty, with their crews, beg. through the medium of the *Shipping and Mercantile Gazette*, to return their sincere thanks to Mr. Evans, and his crew, for the kindness they have received whilst on board the schooner *Victoria.—Feb. 18th.*

47. *Portsmouth, Feb. 18th.*—Put in, the *Warrior*, Thomas, from London for Quebec. The barque *May Queen*, Sayers, from London for Port Philip, has come into harbour to repair damages sustained by having been in contact with a schooner off St. Catherine's; and has been surveyed, the cut-water is found to be displaced, the works of the head carried away, and the woodends on both bows, strained and open, with other damage: she must be lightened.—*Feb. 19th.*

48. *Harwich Feb. 18th.*—The smack *Brothers and Sisters* in turning into the harbour to-day got in contact with the brig *Soelarken*, of Tonsberg, lying at anchor; broke the smack's anchor and carried away her bow-sprit, and holed the brig, which was obliged to slip and run on the mud.—*Feb. 19th.*

49. *London, Feb. 20th.*—The *Solecito Borchese* (Austrian barque) has been stranded at Connemara, after being plundered by the country people. The *Victoria*, of Leith, from London to Barbadoes, was in contact on the evening

of the 11th of February, in lat. 46° N., long 12° W., with the *Sir George Seymour*, Millman, from Calcutta, arrived in the river, and lost the greater part of her larboard fore and main rigging, but had partly repaired damages next morning, and would proceed. The *Sir George Seymour* lost foreyard and spritsailyard.—*Feb. 20th.*

50. *Gravesend, Feb. 19th.*—Passed: The *St. Hilda*, from Hartlepool, with the loss of her bowsprit, and other damage, having been in contact in the Swin, Feb. 16th wind W., strong.—*Feb 20th.*

51. *Report of the Peggy.—Le Briton*, of Jersey, arrived at Hartlepool, 19th inst ; left London Feb. 8th, and nothing particular happened until the 12th, at five o'clock, when lying to in a gale under close-reefed main topsail and main-staysail, we saw a light schooner, and we immediately put our helm up, but the vessel, being under such short canvass, could not bear away, and the vessel ran on board of us, and carried away the bow-sprit, jib, cut-water, five stanchions, bulwark rail, covering boards from mast to mast, and part of the taffrail, and crushed the long boat to pieces.—*Feb. 21st.*

52. *Yarmouth, Norfolk*—Wind W., strong. The *Mary*, Bedford, of and for Sunderland, from London, put into the harbour to-day, with loss of stanchions, rails, bulwarks, and other damage, having been in contact in the Swin with the schooner *Zenobia*, of Dundee.—*Feb. 22nd.*

53. *Liverpool, Feb. 22nd.*—The *Firefly*, Grebow, from Bonny, received some damage, last evening after anchoring in the Sloyne, from being run foul of by the *Star of the West*, Lowber from New York.—*Feb 23rd.*

54. *Gravesend, Feb 23rd.*—The *Margaret*, Musgrove, from Hartlepool, was in contact in Sea-reach on the 20th inst. with the *Sybil*, Jones, from Sunderland, and was cut down abaft nearly to the water's edge; she had to slip her anchor and chain, and run on shore to prevent her sinking; wind at the time strong from W.N W., but she has since been got off and towed up the river very leaky.—*Feb. 25th.*

55 *Bridlington, 23rd*—The *Union*, Holmes, from Yarmouth for Shields, in the bay, reports when laid to in a heavy gale from W.N.W., 21st inst., off Whitby, was run into by a schooner, (name unknown), striking her on the larboard bow, doing her considerable damage; she makes a good deal of water, but intends to proceed.—*Feb. 23rd.*

56 *Bergen Feb. 8th.*—The brig *Staatsraad Vogt*, Soelberg, from Trapani, arrived here, was in contact in the English Channel with the ship *Euphrates*, Wilson, from China, and the brig has lost an anchor and chain in our river. *Feb. 25th.*

57. *Corunna, Feb. 19th.*—The *Victoria*, Menzies, from London, for Trinidad, put in here on the 17th of Feb., with damage, having been in contact, in lat. 45° N., long 10° W. with the *Sir George Seymour*, from Calcutta for London.—*Feb. 28th.*

---

## Nautical Notices.

### Sailing Directions for the Port of Akyab, *in the Arracan River.*

*East-India House, London, the 5th March*, 1850.

Ships sailing for Akyab during the south-west monsoon should steer for the south end of the Western Bolongo, in lat. 19° 50′ N., long. 93° 3′ E.,

then stand along the coast to the northward and westward about five or six miles off shore, until the light is sighted on the Great Savage, at the entrance of the Arracan River, then steer so as to bring it to bear N.b.E. or N.N.E., and if they intend to run in during the night, with either of these bearings, they will cross the bar in the best water, in three fathoms low water spring tides.

After deepening across it, the course should be altered to N.b.W., or even N.N.W., according to the state of the tide and sea at the time, to avoid the Western Rocks (above water), bearing from the light S.W. ½ S., distant nearly half a mile: the flood tide sets in on these rocks.

When the light bears east, in six to nine fathoms on the edge of the flat to the westward, the course must be altered to N.N.E., and N.E.b.N.; having brought the light to bear S.E.b.S. ½ S., the ship will be inside of Passage Rock, which is five to seven feet above water, and bears from the Savage Light N.W. ½ N., distant a quarter of a mile, and should then steer N.E. easterly, to avoid the reef projecting from Faqueer's Point a mile in extent to the South: some of the rocks are above water at half ebb. There is a red buoy placed on the southern entrance in about nine fathoms, which, with attention, may be seen in a clear night without the moon, and after bringing Faqueer's Point to bear N.W.b.N. to N.W., the ship should anchor.

On Faqueer's Point a small lighthouse is nearly finished, the light of which will be a deep red, and will be seen about six miles, or three miles beyond the bar, as a leading mark to clear the western rocks, keeping it a little open to the westward of the Savage Light when steering in or out, also to point out when the ship is inside the reef off Faqueer's Point. With this light bearing N.W.b.N. to N.W. is good anchorage, having excellent holding ground, and perfectly sheltered from the sea.

A stranger should not attempt to run in at night, particularly in the rains, except at high or low water, as the ebb tide runs very rapidly in strong eddies off the Passage Rock, over the dangerous flat to the westward, and the flood in strong eddies upon the rocks.

During the N.E. monsoon, ships bound to Akyab, from the northward, should endeavour to make the Table Land of the Western Bolongo, in lat. 20° 1′ N., then steering due east they will avoid the Oyster Reef, in lat. 20° 5′ N., long. 92° 40′ E., which is distant from the Savage Light fifteen miles due west. This course is recommended, as although in favourable weather the Savage Light is seen outside the reef in sixteen to seventeen fathoms water, the depth suddenly decreases, and the probability of hazy or rainy weather, would prevent the light being seen; and steering boldly in to sight it, to the northward of lat. 20° 1′, would endanger the safety of the vessel, by suddenly falling upon the Oyster Rock or reef before sighting the lighthouse.

I would not advise strangers on any occasion to make use of the channel inside of the Oyster Rock or reef.

JAMES PATERSON,
*Commander, H. Co.'s Ship Amherst.*

The directions above given by Capt. Paterson were published in 1844. The red light referred to was finished and first exhibited in 1845. In 1848 a red buoy was laid on the N.E edge of the bar, in three and a half fathoms low water.

The following additional directions are therefore considered necessary by the port master, and by Capt. Dicey, of the Honourable Company's steamer *Tenasserim*.

In the event of the red buoy on the edge of the bar breaking adrift, it is recommended in working across the bar, not to bring the Great Savage light

to bear more easterly than N.E.b.N., until you deepen over. When you do so, Capt. Paterson's directions may be followed.

Capt. Paterson's caution as to not going in at night, must still be attended to, as the red light is not seen till the bar is crossed.

By order of the Superintendent of Marine,

JAMES SUTHERLAND, *Secretary.*

*Fort William, 31st October* 1849.

*Published by order of the Court of Directors of the East-India Company.*

JAMES C. MELVILL, *Secretary.*

---

*Singapore, February 1st*, 1850.

Capt. Marsh, of the brig *Gem*, has favoured us with the following notice of a shoal observed by him on the 16th ultimo, on his recent voyage from Lombok while passing through the Soloo Sea. "Bearings—Unsang Point S.S.E., and the west extreme of Tambelan Island S.S.W., lat. 5° 34′ N., long. 119° 20′ E. The shoal could be very distinctly seen from the topsail yard, and appeared two miles in extent, and the coral rocks just under water at places." Capt. Marsh further observes that, "Unsang Point is laid down in Horsburgh's chart too far to westward. Most of the islands and shoals in this neighbourhood are very incorrectly laid down, and towards the Strait of Balabak several are not laid down at all. Any vessel sailing through the Soloo Sea, and Strait of Balabak, should have a good look out from the topsail yard, and keep the lead going in the night."—*Singapore Free Press.*

[Every one knows there is not a more dangerous navigation than the Sooloo Sea, and one of which we know less.—ED.]

---

*Buenos Ayres, December 10th*, 1849.

RIVER PLATE LIGHT.—The captains and consignees of national as well as foreign vessels are hereby informed that the national barque *Condor* is placed as a light vessel between Point Indio and the eastern extremity of the Ortiz Bank, and since it has been established a large lanthorn is hoisted on the foremast every night (visible in regular weather at nine miles distance), and a flag during the day when any vessel is in sight, that it may serve as a guide to any vessel entering or departing from this port. The light ship bears from Point Indio N.E b.N. nine miles, and from the end of Ortiz Bank S.W b.S. seven miles in lat. 35° 11′ S., and 57° 3′ W. of Greenwich. According to orders there will always be found on board said light ship capable and examined pilots, who will take charge of and conduct to this port any vessel that may apply there.

PEDRO XIMENO, *Captain of the Port.*

---

ISSUE OF GROG.—*The Peninsular and Oriental Company and the Royal Navy.*—We have often noticed the liberal pay and emoluments of the Seamen of the Peninsular and Oriental Steam Company's Squadron. They have the first and best Seamen in the world navigating their ships; not a few of whom were brought up in the Royal Service. They are contented, happy, and thriving, and the utmost respect and obedience is secured, without the infliction of corporal punishment; for the Commanders are not privileged to use a "cat o'nine tails." The secret of having such good and orderly crews consists in paying the men who serve in the Peninsula and Mediterranean stations, 50s. a calendar month, against 36s. 10d. paid to the Able Seaman in the Royal Navy, being a difference of 13s. 2d. in favour of the former; and in the East Indies and China, 55s. a month against 36s. 10d. a month, being a difference of 18s. 2d. per calendar month in favour of the men em-

ployed by the Peninsular and Oriental Steam Company. We stated some time since that only about one-half of the Company's men took up their allowance of grog, the sailors preferring, for the benefit of their wives and families, to receive a liberal allowance of money instead; and now we see it stated that, "The Directors of the Peninsular Steam Navigation Company have decided on sailing their ships on temperance principles, and with that view are making the necessary arrangements with regard to the allowance of spirits and wine to be shipped as requisite for medical purposes. It is understood that this new arrangement on the part of the Company commenced with the steamer *Jupiter*, on the 27th ult., but that it is intended to apply only so far as the crews of the several vessels are concerned, and not to interfere in any way with reference to the passengers. The crews will be allowed in money more than the cost of the spirits hitherto supplied to them." This is a most judicious arrangement, and reflects great credit on the Directors of this enterprising Company. They will succeed in their endeavour, and the men, we are quite sure will appreciate the wise resolution of the Company. We are glad to find that they have anticipated the resolutions of the "Royal Naval Grog Committee;" but we may remark that whereas, in running from port to port, the Company can very safely and beneficially abolish the allowance of spirits to their seamen, it would not be wise in a Man-of-War. with the "salt junk" and salt pork half a dozen years old, to do away with the seamen's grog altogether. We trust, however, that the distinguished Commmittee will accept the proposition of Rear Admiral Dundas, and reduce the allowance to one-half the quantity at present issued. In the strong rum, which, by the way, is not so good now-a-days as it used to be, sufficient alcohol will be found to assist the digestion of the "mahogany" at dinner, and the extra dose at supper being abolished, many a good man will be preserved from degradation at the gangway.

---

TRIAL OF THE NEW YORK AND GLASGOW NEW SCREW STEAM SHIP, CITY OF GLASGOW.—It seems only the other day that we announced the launch of this noble vessel. She is now ready for sea. The precise dates, which mark a rapidity so extraordinary, seem not unworthy of being recorded. On the 28th of February, then, the launch took place. On the 1st of March the good ship was at the Crane-berth in the harbour, for the purpose of getting her machinery on board. On the 20th her steam was up and machinery in motion, and on the 27th, within four weeks after being launched, she proceeded down the Clyde to the Gairloch, to get her compasses adjusted, in full rig and equipment for sea! Considering the weight and power of the engines, and the magnitude of the vessel, this celerity of despatch on the part of Messrs. Todd and M'Gregor has, perhaps, scarcely a parallel in the annals of steam-craft. The *City of Glasgow*, previously to going up the Gairloch on Wednesday, stretched out towards the Cumbraes, and in fair steaming she made ten and a quarter knots an hour; thus exceeding the expectations of her builders and owners by about two knots, although not in the best trim for speed, being four feet draft of water more aft than forward, and the screw topping the surface fully twelve inches. This is an auspicious commencement, and we have no doubt that under canvass, for which she has been especially constructed, the *City of Glasgow* will prove almost unequalled in speed. The majestic steamer was last week out at sea for several days, proving herself in every possible way, in order that she may proceed on her first voyage as a sound and well tried ship. There is now no doubt whatever that this magnificent vessel will proceed on her voyage to New York on the appointed day, namely the 16th of April, and we learn that she is likely to carry out a full complement of passengers, two-thirds of the

berths in both cabins being already taken up. Capt. Matthews is stated to be quite delighted with his new ship and her performances, which, indeed, far surpass his expectations. He is sanguine of making a rapid passage across the Atlantic, and it is to be hoped the result will be such as to establish confidence in iron-built ships, as well as in the screw propeller, properly applied.—*Liverpool Chronicle.*

---

Australian Mails.—We have reason to believe that the Peninsular and Oriental Company's tender for conveying the Australian mails has been approved of by the Government, and that the mails in question will therefore most likely be sent from Southampton. The Australian mails are of enormous magnitude, surpassing even those for India. A mail, consisting of twenty boxes of letters, passed through Southampton for London on Monday last. This mail was from the port of Adelaide only, and was landed by an Australian liner. When the number of liners which run between this country and New Holland, and the numerous important ports on the coasts of that gigantic continent are considered, some idea may be formed of the magnitude of the Australian mails, that will be sent from and received at Southampton. There is not much doubt now but what the Australian mail packet will proceed in a southerly direction from Singapore, delivering mails, first, to the Swan River Settlement, then to Adelaide, Port Philip, and Sydney. From Adelaide there is likely to be a branch steamer to Van Diemen's Land. By this scheme of going southerly, the dangerous navigation of Torres Straits will be avoided, and a shorter route secured. In order to carry out this plan, and effect a fortnightly communication with China at the same time, the Peninsular and Oriental Company have proposed, we believe, to the Government, to convey the whole of the India mails through the Red Sea and across the Indian Ocean; and thus render unnecessary the enormous expense to which the Government and the East India Company are subjected, in conveying the Indian mails once a month between Suez and Bombay. We understand that the terms offered by the Peninsular and Oriental Company are most liberal, and that if the Government and East India Company consent to give up the conveying of the Indian mails between Suez and India solely to the former Company, that a fortnightly communication between this country and India and China, and a monthly steam communication to Sydney, *via* Singapore, Swan River, Adelaide, Van Diemen's Land, and Port Philip, may be effected, for the same sum which it now costs the Government and the East India Company to communicate twice a month to India and once to China. We understand that the only difficulty in the way of the proposal of the Peninsular and Oriental Company being immediately acceded to by the Government is the unwillingness of the East India Company to withdraw their steamers which now run between Suez and Bombay.

---

Water-dog.—A very extraordinary and unprecedented occurrence took place on board the *Ayrshire*, a ship belonging to Mr. Warren of Houndsditch, on her homeward voyage from Calcutta, in May last. Shortly after the ship had crossed the line, Captain Browne, the master, had occasion to pull at a rope, passing through a block, which was badly secured with some rope yarn. Whilst tugging at the rope the block gave way, and his own impetus suddenly carried him over the side. A noble Newfoundland dog, which was a great favourite on board, with the generous instinct natural to its species, jumped in to his master's rescue, and, seizing him by the collar, brought him in safety alongside, when both were hoisted on board. It

was only then that the danger to which the captain, and his brave deliverer had been subjected, became fully evident. A huge shark, which had been playing for some time about the ship watching for windfalls, had marked the captain for its prey, and was making towards him just as his four-footed deliverer bounded to his assistance. They did not, however, escape altogether unscathed, for just as they were getting up the side their voracious assailant bit away half of the poor dog's tail. The gratitude of the captain for his double escape will be better felt than described, effected as it was in so providential a manner. The poor dog, who was, of course, much caressed, suffered a good deal from the injury, but was ultimately cured.

---

THE WRECK OF "THE ADELAIDE" STEAMER.—Some severe strictures have been been pointed on the light-house men and Coast-guard men with reference to the loss of this steamer. A correspondent in the *Times* says—"It is stated that the Captain of the Tongue light-ship saw a steamer pass on Saturday night during the gale, and twenty minutes afterwards observed, in the direction she had taken, signals of distress; but it appears that instead of communicating to the shore at once, by firing a signal-gun, he inferred that because the distress signals from the ship in danger were not continued after a short time she needed no assistance, till at daylight on the following morning, seeing the wreck of the ill-fated steamer on the sand, he fired a signal-gun, and upwards of eighty boats left Margate in consequence, to render succour, notwithstanding the violence of the weather. The *Examiner* remarks—"The signals of distress on board the *Adelaide* were seen by the Coast-guard at Margate from 10h. 45m. p.m., to 11h. 30m., but, strange to say, no alarm was given, no communication made to the boatmen at the harbour. The reason given for this neglect is, that as the signals were not continued it was inferred that the vessel had got off; but how long could it be supposed that a stranded vessel in a gale of wind could be able to make signals, her decks of course being swept by the sea, light extinguished, and combustibles drenched with water? The Coast-guard should have peremptory orders to convey notice of signals of distress to the nearest boatmen's look-out. On this occasion the Coast-guard could not themselves go to the assistance of the distressed vessel, their gigs not being fit for the service in a heavy sea, or the Men-of-war's men, notoriously bad boatmen, not having the skill to handle them; but the Margate men have boats suited to such occasions of danger, and are in the habit of going off in all weathers to ships in distress. The cause of the lamentable wreck of the *Adelaide* was not stress of weather, though it was blowing hard. It is another woeful example of imprudence. The passage of the Prince's Channel, which is narrow, ought not to have been attempted at night and upon the ebb of tide, with the wind eastward, and the heavy sea that runs in from the long drift of the North sea. The prudent course would have been to have brought up till daylight in Margate roads. It is to be feared that the lighting of the Prince and Queen's Channels encourages rashness. Before lights were placed on the Tongue and the Girdler no Captains ever thought of attempting to make the passage in the night, and, per force, they brought up in Margate roads. Now that the channels are lighted, they think themselves bound to make the best of their way up and down; and apprehend that their activity or skill in pilotage will be called in question if they take the more prudent course of coming to anchor till daylight.

From all the examinations that have been made of the ill-fated wreck, and from all the inquiries that have been instituted, there remains little doubt that the fearful loss of life on board the *Adelaide*, occurred by the blowing up of the vessel.

The men of the coast-guard having been severally questioned on the subject by Capt. Charlewood, the inspecting commander of the district, it appeared that one or two lights or rockets were seen by some of them, and one gun was heard between 10h. 30m., and 11 P.M. of the 30th ult., but, as the signals were

very indistinct and not repeated, they were not supposed to be signals of distress. At daybreak the men mentioned the circumstance to some boatmen of Margate, who, however took no notice. until shortly afterwards a gun was fired from the *Tongue* light-vessel. A lugger then went out, and, on speaking the light, was told that a steamer was wrecked on the Tongue Sand.

On the 3rd inst., Mr. John Cutler, the Receiver of Droits of Admiralty, and Surveyor of Steamers, went on board the *Tongue* light vessel, when the master informed them that a steamer, which they believed to be the one wrecked, passed them on the Saturday, at 7h. 30m. P.M., steering W.N.W., the wind blowing very hard S.E.b.S., with a heavy sea. At 10h. 45m. P. M. they saw a red light, which they thought to be the flare from the said steamer's funnel; a rocket then went up from the same spot, bearing from the light-vessel W.b.N.; they then fired one gun from the light-vessel. Shortly after, they saw another flare, and nothing more until the morning, when they saw the wreck. They then fired another gun, which brought off a lugger.

Mr. Cutler was at the wreck at low water, and found the bowsprit and two paddle-boxes above water, also the stocks of the two bower anchors. The starboard paddle-box was crushed, apparently by the falling of the funnel, the stern frame and port quarter were gone, and as the divers then reported, "everything appeared blown out from the after part of the vessel." Sheets of new copper, and other articles, were being picked up astern of the wreck, the whole starboard side appeared thrown outwards, the beams adrift, and every part loosened, which rendered it unsafe for the divers to descend into the wreck until they could get a calm day.

The divers were directed to endeavour to ascertain positively the state of the boilers, and on Saturday, one of them reported that in the upper part of the back of the boiler, on the port side, there is a large hole, the edges of the iron forced outwards, which can leave no doubt of the boiler having exploded, and forced out the port-quarter, stanchion, and after deck, which may account for only one rocket having been thrown up from her, as rockets on board steamers are frequently kept tied up under the deck beams, in the after part of the cabin.

It will be remarked that the steamer passed the light at 7h. 30m. P.M., low water, steering W.N.W., with a fair wind, and tide just heading in their favour. The spot where the wreck lies, with her head W.S.W., (four points out of her course), is only three miles from the *Tongue* light-ship. The steamer must have run that distance in about fifteen minutes. Had she then got on shore, signals of distress would surely have been made; but the people on board the light, and the men on shore agree as to the time the signals were seen being about 10h. 45m. P.M.; it therefore appears probable that something may have happened, which induced the steamer after a time to endeavour to return to the North Foreland, and that to prevent her sinking in deep water she was run on shore on the Tongue Sand, which, with the wind S.E.b.S., was the weather side of the Prince's Channel, and that on striking the ground the boiler exploded; when the funnel fell, a flame would be seen from the uptake or upper part of the flues of the furnace.—*Morning Herald.*

It is evident from the foregoing that the loss of the Royal Adelaide arose from some accident connected with her engine, and that she was run on the Tongue Sand, as a last though fatal resort, to prevent her sinking in deep water. Her loss however had been attributed (and with good reason) to her steering a bad course; for it is evident on consulting the charts of Laurie, and others, that had she rounded the Tongue light vessel at even half a mile distance, she would have gone on shore nearly where she did by steering the course E.b.N. ½ N. as given in them. The course given in the Admiralty chart by Capt. Bullock, is E.N E. and even this although it clears everything is scarcely enough to the northward on a flood tide which sets about E.S.E. * As to the danger of the Prince's Channel alluded to in the first account, we attribute no importance to the statement. A ship may always make sure of her position by her lead

* See Lieut. Burstall's letter in Shipping Gazette of April.

and with a proper attention to the tide and a proper course, clear from the effects of local attraction, she may "thread the Needle" as it is called in safety. We therefore caution ships against steering the improper course laid down in the charts to which we have alluded and consider that this fatal event has brought to light another instance, when confidence in them would produce more as disastrous results as that of the Royal Adelaide.

## Sandalwood Voyage.

We are indebted to Captain Woodin of the British barque Eleanor for the following Narrative of a Sandalwood Voyage, forcibly setting forth the imminent dangers both by sea and land, which attend the crews of vessels engaged in that trade—perils which we regret to say, the ruling prices of Sandalwood in China, but poorly compensate:—

Thursday, 25th November.—Arrived on the east coast of Caledonia, anchored in a bay, where the brig Spy, Captain Whyte, was lying, found that the party I had left on shore and the crew of the brig Spy had had a desperate encounter with the natives, in which five of the crew of the Spy were severely wounded; fortunately no one killed. From the best information I could obtain, nine or ten of the natives were killed, and a great many wounded, as several of them applied to me to extract the balls out of their arms and legs. It appears that this encounter arose from the jealousy of the Wiloian tribe against my friends, (natives), caused, I suppose, by my friends getting rich in trade. The Wiloians are a very numerous tribe, and have great influence for many miles along the east coast. I am of opinion that great provocation had been given by some of my party, who remained on shore. Sailors unfortunately never consider the interest of their employers, let them be ever so well paid and treated; indeed they are almost (generally speaking) as bad as savages—creatures led on by the impulse of the moment.

Finding no prospect of getting sandalwood, after remaining four weeks, I resolved to try the West coast, and sent the brig Spy to Aromango, together with the cutter Georgiana, to try what success they would meet with there.

On the 21st December we sailed with the Eleanor, resolving to endeavour to find a passage between Botany Isle and the south end of Caledonia, and thereby save a tedious passage round the south end of the reef that extends south of the island "Caledonia." Fortunately I succeeded to my most sanguine expectations, and went through a very good channel, with deep water, and but few dangers in the way. On proceeding round, I found the south part of Caledonia to be an island of about ten miles in extent, and with a west by south and east by north direction, a deep water channel from shore to shore, and room enough to work a frigate through. I have named it "Woodin's Channel," as I believe I am the first person who has navigated a ship round the south end of "Caledonia" inside of the reefs. In the channel above mentioned, there are several deep bays, with abundance of fresh water running down the sides of the mountains; close to the beach, ships could anchor in any of the bays in 15 fathoms or less, as circumstances might require. Whilst seeking for sandalwood I examined the whole of the coast from Botany Isle to the extent of the channel, but found none. Being informed by the natives on the east coast that a vessel had been wrecked on the reef on the west side and nearly in the same parallel we were leaving, and described to be a schooner, I concluded it must be the Vanguard of Sydney. They also informed me that the whole crew had perished. I however made up my mind to search the coast thoroughly to ascertain if any of the unfortunate crew were spared, (being then quite ignorant of the escape of the Vanguard.)

Saturday, 1st January.—Anchored in abay where I knew some Sydney ships, as also the Spy, had procured sandalwood. In a short time the natives paid us a visit, and among them a great number of my old friends from the "Isle of Pines." They seemed rather surprised that we should have come round by the way of Botany Isle. My first enquiry was respecting the Vanguard and crew, and to my horror and surprise, they informed me that the two boats' crews of the Vanguard had been cut off by a tribe about nine miles N.W. from where we were lying, and that the Vanguard had gone to sea, but not until the natives

of that place had tried to cut her off. Since I received this information I have heard that the Vanguard had arrived safe at Sydney. The manner in which these merciless savages destroyed the poor fellows is most shocking. It appears that the whole of the men very imprudently left their boats, and all to a man unarmed, and that while each man was carrying his load, the natives pushed the boats off, and then rushed upon them with their tomahawks and hamstrung them, severed their heads and arms from their bodies, and then made one heap of their mutilated remains and burned them. Not one escaped, the master, Mr. Cunningham, a young man, was the first they attacked. The names of the chiefs connected with this horrible massacre are well known to some of the commanders of the Sydney vessels, the principals were Angulla, Queendower, and Jakee or Jack. It may be said, that the crew must have given some provocation, which may often be the case; but in this instance, there was none given, which I can vouch for. I particularly enquired whether the crew had fired upon the natives, when the whole of my old acquaintances (also natives) told me they had not; and I feel confident from the frequent opportunities I have had of seeing Mr. Cunningham trading with the natives, that he would not allow any one to commit offences against them, always treating them with liberality and kindness.

Sunday, 2nd January.—This morning Angulla, the chief mentioned before, moved the two whale boats belonging to the Vanguard out of our sight, to a distance of six miles, and then hauled them up to the bush, choosing a place where the water was so shoal that we could not get our boats within musket shot, for we had been preparing to attack these merciless savages, and rescue the boats, if at all practicable, and endeavour as far as our means would permit to punish them; but the wily rogues were too much on the alert to be taken, and took to the mountains. I am of opinion that no ship-of-war would ever be able to bring these savages to punishment, for so soon as such a vessel would make her appearance they would take to the mountains; it can only be done by trading ships, and then the crews should be under good discipline; or the innocent would suffer for the guilty, for the natives of New Caledonia are not generally hostile to Europeans. In many parts of the island I have, with my boats' crew, been treated with great kindness, and that without the means of making any return.

The time I speak of was when I was exploring the coast in two open boats, visiting every river and creek we could get into. Often have the natives between the parallels of 22 and 20·30 on the east coast carried our water breakers to some distance and filled them for us, always returning with the greatest punctuality. I will here mention one instance of as great kindness as we could have experienced from our own countrymen, and perhaps more so; the weather on the occasion I speak of was very boisterous, and obliged me to take shelter under an island situated about two miles from the main. We were detained in consequence of a continuation of bad weather, three days, during which time our provisions were nearly exhausted; in fact, we had scarcely anything to eat. On the first night of our sleeping on the island a few natives swam over to us, and one or two of them were rather insolent, and ordered us to leave the hut we had taken possession of. I merely laughed at them, and told them in the best manner I could, that we had no bread to give them, and that we had nothing to eat ourselves, (biscuit is an excellent make-piece with these savages.) While in conversation I observed two natives leave the island for the main, I expected of course that they were going to collect a force to attack us, but kept my suspicions to myself. In order to be prepared for the worst, I looked at our arms, and saw that each man had his cartouch box buckled to him, and also his cutlass.

About 6h. P.M., I was taking—I cannot call it a sleep—but something approaching to it, when I was aroused by my men saying, "Sir, the natives are coming to attack us." My answer was, "To arms then, boys, but let not a man fire without my orders." By this time I got my eyes fairly opened, the natives were within musket shot, but I could count man for man, which I told my men to give them confidence, but they persisted that there was a great number and all armed. My answer was, at the same time walking on before

them, "I do not see more than I tell you of, and I think their arms are sugar canes which they are holding up and waving to us in token of friendship." This proved to be the case, for a chief approached (a most noble looking man,) and presented me, first with the taper or turban off his head, a sure sign of friendship, and then, with a piece of sugar cane. Finding that he could speak the Isle of Pine dialect, I made him acquainted with our situation; he told me if I would launch the whale-boat and go to the main-land he would fill our water-breakers and send me some yams, and if any one dared to molest us, desired me to shoot them, as the island and all on it belonged to him; he at the same time severely rebuked those who had insulted us. In a short time our boat returned and with the promised supply, and it was with a great deal of persuasion I could induce him to accept of a small axe in return for his kindness.

At about 5 P.M. saw a ship anchor inside the reefs, distant from us about seven miles.

Monday, 3rd January.—Observed the ship which proved to be the *Avon*, of Sydney, Capt. Cooper, move into the bay, and anchor within four miles of the very spot, where the boats' crews of the Vanguard were cut off, and distant from us about eight miles to the north-west. I immediately ordered my boat to go on board the Avon, to inform them of the dangerous ground they were on, thinking that in all probability they were quite ignorant of the hostile tribes they would come in contact with at that place, and probably the boats' crews might be led into the same snare as the Vanguard's, but before I reached the ship, the boats were off. On my arrival on board I enquired of Capt. Cooper if the natives had been on board, or had made their appearance; he informed me that they had, and that the Chief Angulla was with them, and wishing him, Capt. Cooper, to go on shore, for he had got plenty of wood. Captain Cooper asked the natives if they knew anything of the Vanguard or her crew, (understanding previously that she had been wrecked, and like myself quite ignorant of what had taken place,) they all to a man denied having seen any two masted vessel in that place, and then left the ship, which was about an hour before I got on board. So soon as Capt. Cooper had related the above, I informed him that these very fellows had massacred the boats' crews belonging to the Vanguard, and that they had now in their possession the two boats. Capt. C. seemed astonished; I told him it was unfortunately too true, and that I had taken the earliest opportunity of putting him on his guard, and assured him at the same time that these savages had no wood worthy of his attention, and not to think for a moment that I had come to drive him off the ground, for unfortunately there was too much of that ill-feeling existing amongst the sandalwood traders, which the wily natives took advantage of. During my stay on board, the boats returned, but with a very small quantity of wood, and that very inferior; I made the following remark to Capt. Cooper and his officers: "Do you see that the wood you have brought is all roots; if those fellows had any quantity, they would never take the trouble to get the roots up," for the labour is immense; but the first and second officers made answer, "They have plenty on shore, and have told us to come to-morrow, and bring plenty of men and trade and carry the wood out." I replied "My good fellows, do not be deceived by them, they are only laying a trap for you, and be very careful what you are about, I assure you again that they have no wood here worthy your attention, for the brig *Spy* remained here sixteen days, and only procured about one ton, and that very inferior."

I addressed myself to the chief officer in particular saying: "Mr. Rodd, you ought to know that the natives will never take the trouble to get the roots up if they had any standing trees;" but they would hardly credit my assertions, and had actually made up their minds, prior to my coming on board, to take a large party of the crew on shore to cut and carry wood out of the bush, as had been done on a previous voyage by Capt. Silver; however, I had the pleasure of dissuading them from that purpose. I then proposed that we should prepare our boats, and, in conjunction with them, go and punish these merciless savages, remarking at the same time: "If we do so, of course, all trading will be at an end, but really it is our duty to punish them, and all the wood we get will never pay us to remain here, for I am doing nothing where my ship lies

and am only completing the water." Seeing that the captain and officers were undetermined, as to what course to pursue, I bid them good bye, begging of them to be well on their guard should they go on shore in the morning and be well armed, for I was certain the natives would attack them. On making the best of my way to my ship, I observed several canoes sailing into the bay where the Avon's boats had been trading, in fact, the very spot where the massacre of the Vanguard's boats' crews took place. I had with me the cutter Georgiana; she had returned to me having missed the Spy; the officer in charge of the cutter knew Angulla well I hailed him, and ordered him to keep the cutter away, and endeavour to cut off the canoes. That I might get a good view of the villain, to distinguish him from the other natives: we chased them some time but the wily rogues' finding we were coming up with them, pushed on shore. I left the pursuit and ran as far as the shoal water would allow into the bottom of the bay; I then waived a white cloth to them to induce them to come alongside, but all to no purpose; I think I counted about forty natives distributed about the bay and sitting on the beach. I remarked to my officer, "We could pay these rascals well now for their cruelty, but should we fire upon them, of course, Captain Cooper and his crew will say, we have spoiled their voyage." Sorry was I afterwards that I allowed my feeling to get the better of me, for the crew of the Avon to a man, captain excepted, thought we were only endeavouring to get them from the coast, and the chief officer when he saw me run into the bay with the cutter, went to the mast-head of his ship to see if I was trading with the natives, notwithstanding I had come the distance of eight miles to put them on their guard.

Tuesday, 4th January.—At 1h. 30m. P.M. saw one of the Avon's boats pulling towards our ship; I remarked immediately to my chief officer, you may depend the natives have been either attacking the boats' crews, or made an attempt on the ship—my fears were soon realized, for on looking into the boat as she came alongside, I observed the boat was very much stained with blood; Captain Cooper came on board and informed me the natives had that morning attacked his boats' crews, and that his chief officer had lost his left hand, and his second officer was dreadfully wounded on the back part of his right shoulder and downwards; a man of colour severely wounded in the abdomen, so much that his entrails were protruding, besides, a severe wound on the right arm; and three others of the crew were sadly bruised with clubs. I immediately sent my chief officer, Mr. Westbrook, with Captain Cooper, to render all the surgical assistance he could, having had some experience with his father. I then lost no time in moving my ship to where the Avon lay, in order to give them all the protection we could muster, as Captain Cooper was under the impression that the natives intended to attack his ship—in anchoring I took up a good position with my ship, so that both ships' guns should bear upon the canoes, should they venture out; I then went on board the Avon to see if I could render any assistance to the wounded, and to enquire as to the cause of the sad affair.

It appears they were the same natives that I had seen on the previous evening that committed the assault, and I do not doubt but that they were at that time planning their attack—from what I could gather the following appear to be the facts of the case: On the morning of this day (the 4th) Mr. Rodd, the chief officer of the Avon, and Mr. Moorcroft, the second officer, landed for the purpose of trading, the natives had collected some superior wood to beguile the boats' crews, who would find great diffiulty in escaping from their attack. Messrs. Rodd and Moorcroft with three men went on shore and purchased the wood, and the very instant they stooped down to lift the wood, (turning themselves half round towards the boats,) Angulla, they think it was, made a blow at Mr Rodd with his tomahawk and wounded him on the back, cutting one of the lower left rib bones through, close to the spine; the poor fellow in retreating put his left hand across his head to protect it, when this merciless savage aimed another blow at his head severing the left hand close to the wrist, and with the same blow made a dreadful wound on the right side of his face destroying the optic nerve of the right eye. The man of colour before mentioned received his wounds whilst gallantly protecting his officers, and fortunately for them

another man of colour, of Portuguese extraction, jumped on shore with his cutlas, and in a most brave and determined manner drove all before him wounding several of them, cut one fellow down the left shoulder to the collar bone. At last he drove his cutlas through the body of another who endeavoured to oppose him, which he could not recover again as the fellow ran away with his cutlas in his body until he fell.

One European had the presence of mind to fire a blunderbuss at a fellow who was bidding defiance to them, he received the contents of it and fell to rise no more. I believe Mr. Moorcroft fired a pistol at the fellow who wounded him, and it was thought that it took effect in his breast. Too much praise cannot be bestowed on the two men of colour, for had they lost their presence of mind and not fought as bravely as they did, every one of the boats' crew would have shared the same fate as the boats' crews of the Vanguard, and on the very same spot. Through the determined courage of these men, the Avon and her crew were saved from being cut off, for no sooner had the boats left the ship in the morning, and judging the time the crews of the boats would be destroyed (consisting of twelve men) then a large canoe containing eighteen natives, went alongside with a small quantity of wood, and asked the men that were on deck to go down into the canoe and hand it up, but Captain Cooper would not allow them, and ordered them to put all the edge tools below except those they were using. Whilst Captain C. was engaged purchasing the wood, a great smoke was observed to be rising on shore; this I presume was a signal for the canoe to leave the ship as the villains on shore had failed in their attempt to destroy the boats' crews, for the villains hurried off with their canoe, and as the Avon's boats were returning, passed them at a respectful distance, jumped on shore, and hauled the canoe up out of sight.

This ship and her crew have had a narrow escape; and had I not put them on their guard, there is no doubt but every soul would have been cut off by these savages. I therefore rejoice that I did put them on the alert. As far as I can ascertain, no provocation was given the natives to commence hostilities, for Messrs. Rodd and Moorcroft were always very kind and liberal to them when dealing. Had those officers obeyed the instructions of their commander they would never have been attacked, and consequently would have escaped the dreadful wounds before alluded to; but, doubtless the poor fellows seeing a quantity of wood and anxious to do the best they could for their employers and themselves, ran a greater risk than they would have done on a more ordinary occasion; indeed, no officer can succeed in the sandalwood trade unless he continually exposes himself to the natives, and hardly then.

It was really a heart-rending scene to witness that poor young man, Mr. Rodd, deprived of the means of earning a subsistence owing to the loss of his hand, the sight of his right eye, and worst of all the wound in his back, which alone will ever render him incapable of any exertion. But should it please Providence to spare him to reach Sydney, when amputation of the arm will be necessary, as a part of the bone is now exposed to view, I hope and trust the liberal community of the city of Sydney will contribute something to alleviate the misfortune of this young man.

Thursday, 6th January.—Put a 9lb. carronade into the cutter and manned her with eight men; myself and Captain Cooper accompanied her with a 6 and a 5 oared whale-boat and fourteen men, and proceeded to the spot where the crew of the Avon had been wounded the day previous, in hopes of being able to punish these savages. We took up a good position with the cutter, so that the gun mounted on board of her might pour in a destructive fire of grape shot should these scoundrels be inclined to show out. After making our arrangements we landed and found the wood that had been partly purchased the day previous, some on the beach and some in the scrub, which we seized, and then commenced a search for the rogues, but could not come up with them. Finding we were foiled in our designs, we destroyed all the huts we could find, and the plantations around them, and set fire to the country for miles. On our return to the ships, we accidentally found the large canoe with which they attempted to take the Avon secreted among the bushes; we destroyed it instantly, well knowing that such would be as great a loss to them as anything we could get hold of.

DEPARTURE OF CAPTAIN PENNY'S EXPEDITION.—Captain Penny's expedition, consisting of the "*Lady Franklin*," commanded by himself, and the "*Sophia*," Captain Stewart, of Peterhead, left Aberdeen on Saturday at two o'clock on their perilous enterprise. These vessels, fitted out at the expense of the Admiralty, are provisioned for three years. They are provided with a printing press, and every appliance to relieve the tedium of a long sojourn in the icy regions. The crew of the Lady Franklin number 25, and that of the Sophia 20 men, all picked seamen, inured to the dangers of the Polar seas, and mostly belonging to Aberdeen. Immense crowds of persons of all ranks lined the quays and pier to witness the moving sight of so many gallant fellows, inspired by the highest hopes of success, leaving all that are near and dear to them for the regions of perpetual snows. Lady Franklin and her devoted companion, Miss Craycroft, were present at the departure.—*United Service Gazette*.

---

ADMIRALTY DECISION.—COLLISION BETWEEN THE FORTUNE AND ELIZA.

Mr. Baron Rolfe, in summing up, said there was no dispute that the *Fortune* ran the *Eliza* down; that was an admitted fact by both parties; it then remained a question, by whose fault the accident was occasioned, or whether the crews of both vessels were in some degree to blame. In the latter case neither party could recover compensation, but if one party only were to blame, the other was entitled to recover for the damage sustained. With regard to the damages, the witnesses had stated that the ship was worth from 815*l.* at 5*l.* per ton, to 850*l*; the cargo of coals, 147*l*; and charts and instruments about 20*l.* That would be the damage, if the jury considered the plaintiffs entitled to the verdict. The plaintiffs must show that they had used all ordinary caution and prudence, and did not contribute to the loss, otherwise they cannot recover. It has been urged by the defendants that it was not right for the *Eliza* to alter her course at all, being close-hauled by the wind; but if I see they are coming upon my ship inevitably to crush me and my property, I am undoubtedly justified in saving myself, my crew, and my ship; and the plaintiff's crew were perfectly justified in so doing. As to the state of the wind, the witnesses on both sides agree generally. There is, in fact, not more than half a point difference at 10 o'clock, when the accident happened; except one witness, who said it was S.S.E. He certainly appears to have fallen in with an extraordinary current. For the plaintiffs it has been shown that their vessel was tacking, and making the best course she could towards Dublin, with the wind S S.W., and the ship steering a W. course; and that the crew did all they could until the last emergency, and if that be correct the accident must have been caused by the crew of the *Fortune*. For the defendants it is said one ship is going E.N.E. and the other W.S.W., and therefore meeting one another, but they represent the *Eliza* to be considerably to windward, about a point and a half on the *Fortune's* starboard bow, and that if the vessels had both continued their courses, they would have passed half a mile distant. The learned judge then added, that the plaintiffs were entitled to recover, if the jury were satisfied that the *Eliza's* crew had done their duty, and the accident happened by the mismanagement of the *Fortune's* crew, bearing in mind that the plaintiffs ought not to fail by porting their helm, at the last extremity, in consequence of the previous mismanagement of the *Fortune*; but if they should be of opinion that the accident happened from the *Eliza* coming improperly towards the *Fortune*, then the defendants would be entitled to their verdict.

The jury returned a verdict for the plaintiffs, damages 959*l.* 15*s.*

ESTABLISHMENT OF A SAILORS' HOME AT THIS PORT.—We feel unfeigned pleasure in directing the attention of our readers to a public meeting held here on Tuesday last, at which it was determined on establishing forthwith a Sailors' Home in this important locality. It was exceedingly gratifying to see a veteran officer, surrounded by brother officers in both services taking a leading and active part in a step so important, and one so eminently calculated to advance the social and moral interests of our gallant tars. The generous and unanimous feeling expressed by all who took part in the proceedings in favour of doing something to ameliorate the present degraded condition of the sailor, was most enthusiastically responded to by a numerous and influential audience, who estimated, in the manner it deserved the important testimony of the gallant Lieutenant Governor of this district, Lord Frederick Fitzclarence, relative to the working of similar efforts on behalf of the soldier, by the establishment of Regimental Savings' Banks. In truth, the kind interest manifested by his lordship in behalf of this effort to improve the sinews of the sister service does him infinite honour.—*Hants Telegraph.*

## METEOROLOGICAL REGISTER.

**Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory. From the 21st of March, to the 20th of April, 1850.**

| Month Day | Week Day. | Barometer. In Inches and Decimals | | Thermometer In the shade. | | | | Wind. Quarter. | | Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | Th | 30·15 | 30·19 | 41 | 42 | 37 | 43 | N | NE | 4 | 4 | bc | o |
| 22 | F. | 30·21 | 30·00 | 34 | 47 | 27 | 48 | W | W | 2 | 3 | o | o |
| 23 | S. | 29·52 | 29·56 | 33 | 41 | 32 | 42 | N | NW | 6 | 5 | qbcps (2) | qbc |
| 24 | Su. | 29·55 | 29·61 | 34 | 35 | 30 | 36 | N | N | 6 | 5 | qbc | qos (3) (4) |
| 25 | M. | 29·74 | 29·76 | 31 | 37 | 28 | 38 | N | NW | 4 | 4 | bcps (2) | bcm |
| 26 | Tu. | 29·76 | 29·76 | 27 | 37 | 22 | 38 | W | SW | 1 | 1 | bc | bcm |
| 27 | W. | 29·82 | 29·86 | 31 | 42 | 23 | 43 | NE | E | 1 | 1 | b | bcs (4 |
| 28 | Th. | 30 03 | 30·06 | 37 | 35 | 21 | 39 | NW | SW | 1 | 1 | b | bcm |
| 29 | F. | 30·14 | 30·12 | 35 | 45 | 23 | 47 | SE | SE | 3 | 3 | b | bcm |
| 30 | S. | 29·94 | 29 82 | 41 | 51 | 31 | 52 | SE | SE | 5 | 4 | bc | o |
| 31 | Su | 29·67 | 29·72 | 44 | 54 | 38 | 54 | SE | S | 2 | 3 | or 2) | or 3] |
| 1 | M. | 29·66 | 29·48 | 50 | 57 | 42 | 58 | SE | SE | 4 | 4 | o | od 4] |
| 2 | Tu. | 29 23 | 29·23 | 53 | 59 | 48 | 60 | S | S | 2 | 4 | o | bc |
| 3 | W. | 29·41 | 29·41 | 53 | 55 | 46 | 56 | SW | SW | 5 | 6 | qbc | or [4] |
| 4 | Th. | 29 04 | 29·08 | 53 | 57 | 48 | 58 | SW | SW | 6 | 6 | qop (2) | qbc |
| 5 | F. | 29·67 | 29·81 | 52 | 56 | 45 | 57 | W | NW | 5 | 4 | qbc | bc |
| 6 | S. | 29 74 | 29·72 | 47 | 58 | 41 | 59 | SW | SW | 4 | 3 | od (2 | bc |
| 7 | Su. | 29 73 | 29·72 | 53 | 63 | 48 | 64 | SW | SW | 2 | 2 | o | bc |
| 8 | M. | 29·44 | 29·40 | 55 | 57 | 46 | 62 | SE | S | 1 | 3 | o | or 3] |
| 9 | Tu. | 29·36 | 29·40 | 50 | 53 | 45 | 55 | SW | SW | 6 | 4 | qo | bc |
| 10 | W. | 29·46 | 29·44 | 48 | 53 | 42 | 54 | SW | SW | 3 | 2 | bc | bc |
| 11 | Th. | 29·39 | 29·42 | 46 | 55 | 39 | 56 | SE | NE | 2 | 2 | or (2) | bcp [3 |
| 12 | F. | 29·64 | 29·72 | 53 | 52 | 42 | 54 | S | S | 1 | 1 | of | gotlr [3 |
| 13 | S. | 29·90 | 29·86 | 45 | 51 | 42 | 52 | SE | S | 1 | 2 | o | or [4] |
| 14 | Su. | 29·86 | 29 88 | 46 | 53 | 42 | 54 | NE | NE | 2 | 1 | o | o |
| 15 | M. | 29·46 | 29·37 | 47 | 56 | 43 | 57 | SE | SW | 2 | 4 | or (1) (2) | bc |
| 16 | T. | 29·22 | 29 10 | 50 | 52 | 43 | 53 | S | S | 7 | 6 | qor (2) | qbc |
| 17 | W. | 29·50 | 29·63 | 52 | 57 | 45 | 59 | W | W | 5 | 2 | qbc | bc |
| 18 | Th. | 29 92 | 30·01 | 49 | 53 | 40 | 60 | SW | SW | 1 | 2 | bcm | bc |
| 19 | F. | 30·06 | 29·98 | 51 | 52 | 43 | 53 | SW | SW | 5 | 5 | qo | qor [3 4] |
| 20 | S. | 29·63 | 29·59 | 52 | 54 | 46 | 56 | W | W | 3 | 5 | bcp 2) | qbcphr [3] |

March, 1850.—Mean height of the barometer = 30·163 inches; mean temperature = 38·9 degrees; depth of rain fallen = 0·19 inch

Hunt, Printer, Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

## Naval Chronicle.

JUNE, 1850.

### Sketches,—Characteristic of the Sailor.

It is an old saying, oftener applied reproachfully than otherwise, that, "Birds of a feather flock together." Relative to the sea service, however, it has not, nor can have any such opprobrious application, but rather the reverse, as displaying congeniality of sentiment, and a brotherhood, the bonds of which are sincerity and candour, unshackled by those forms and ceremonies which clothe with an artificial guise the manners of general society; and which, unlike the masonic association requires no mystery, nor conventional signs, or rules for its observance or support.

On shore, sailors soon find one another out; and the fondness for each other's society is one of the many marked characteristics of the class. They can recognise the calling by a mere catch of the eye—"by the cut of the jib," as the phrase is,—even though the individual should be out of the garb of the order; and, as Jack is an unceremonious being, he does not hesitate to introduce himself by the well known hail of "I say, shipmate, how does the land lie?" He fights shy of the "land-lubber's" palaver, being no match for his logic, and therefore, is ever sighing for a right-down salt water confab with a batch of brother tars.

The officers are much in the same plight on shore; and although mixing in general society, except at balls, they seem to be as "fish out of water,"—something appears to be wanting to minister to their happiness, or rather perhaps, to remove the restraint which holds them, as it were, "in irons."

I have seldom seen one in company, out of doors, with a shore man, if, by any chance, he could get hold of one of his own cloth; when successful in that, the companion becomes a real blessing to him; he can then fix his ideas to that point towards which they have a natural tendency—towards old ocean, that wide area upon which he has figured, and played perhaps, a conspicuous part.

If seen in a sea port, his course is usually shaped towards the position where the ships are lying; if at a river port, towards the quay: the very sight of the masts and yards makes his eyes sparkle with delight! the smell of the tar is to his olfactory as a nose-gay—he snuffs its odour as the old woman her "rappee," or the qui l-nunc his Lundifoot! Then, the criticism on the various rigs, the new fangled changes that have been introduced to economise labour, &c. :—some are approved; others meet his sneer; and if he happen not to have a companion to commune with, he sheers alongside of some old weather-beaten tar, and courts discourse with a direct appeal to his sympathies:—"A smart looking craft that, old boy?"—"Yes, sir, very well to the eye; but, she's all legs and wings; a deal too taunt to please me!"—"Ah! just so; those sky-sail poles, as slender as a rattan, are not exactly the things for a channel breeze; but, only look at those queer iron sprits, what an innovation! pray what do they call 'em?"—"Ha, ha, ha! whiskers, sir, whiskers!" &c., &c.

If you see him inland, by a natural instinct, you may guess he is wending his way towards the river; his companion a poodle, or a spaniel; it is water he seeks; it is the element that always claims his especial notice; and whether fresh or salt, has a talismanic effect, not only upon his vision, but upon his thoughts; and he dwells, when away, upon the remembrance, with the deep earnest feelings of a lover upon his mistress! Here are his thoughts:

"The sea, the sea! I love to watch its billows rise,
And lift their white crests high—
As rolling in masses along the troubled skies,
The cloudy vestures fly.
The sea, the sea!—the dark blue sea!
Long, long I've been a child of thee—
Long, long I've sailed upon thy wide, wide breast:
Have seen thine ire—have seen thee sink to rest;
Still, oh still! I love to see
Thy rolling surges lash the shore,
And on the strand their white foam pour!
I love to see thee in thy angry mood—
When stormy breezes o'er thy bosom sweep—
And rattling thunders' loudest peals obtrude
To throw their echo's from the craggy steep,
And concert hold with thee!
The sea, the sea!—the placid sea!
I've seen thy vast surface rest
Like polish'd mirror—shining bright
With the Sun's rays reflected light,
And shadows flitting o'er thy breast—
Yet—awful in tranquillity!

The sea, the sea! the troubled sea!
Oh! long, long I've watch'd thee in thy sublimest wildest rage
Lash thy white mane upon the rocky shore,
And seen thee on the helpless bark thy war of fury wage,
'Till thou seem'd weary, and could war no more!
Still, in thy wrath, I lov'd thee!"

Those are his thoughts, from remembrances which never die! The sublime dangers, the perils of the storm and the battle, the sufferings, sickness, thirst, hunger, e'en to the extremity of human woe, cannot erase its image from his imagination. He turns to it, whencesoever, wheresoever, he may be, as the vane to the wind!

If the sea is to be seen from any hill of moderate height in his vicinity, thither he trudges to feast his eyes, as if it were some wonderful thing he had previously but a very vague idea of! And if perchance, he may have been bewitched by syrens in passing some new Pelorus, the forgetfulness of his ocean-home is not included in the charm: in that, his recollection is as tenacious as Jeffry's marine glue:—ay! memory is busy with all the class, not him alone who has been successful, and whom Fortune, with her lifting hand, has helped to rise; but with him, too, who has run his pilgrimage faithfully, but unprofitably, through the defiles of warfare, up to the breach of the forlorn hopes, greyheaded, bent down, careworn: yes! he, even he, veteran in sorrow, looks back, and calls in the language of the poet.*

"Where are ye, hopes of Boyhood's days?
In joy your spells were spoken,
Amid the false world's heartless ways
We looked to meet pour glorious rays;—
We found ye—crushed and broken!
Ye speak not—oh! ye too are flown,
Too fair were ye to last;
And sorrow now may claim her own,
When Fate has left us here alone—
The memory of the past!

How many an ardent heart in the battle of life, alas! like the French general at Busaco, has felt secure of the casting vote of Fortune, and has fallen into the arms of disappointment! But, what matters it?—how short are the years in which the vicissitudes attendant on our career in this world will exercise their sway! why mourn after the unstable smiles of the fickle goddess?—Is the spirit which animates our frail structure to waver, or be subdued, because the sunshine of prosperity averts its rays from us? One thing, among the versatile prospects of life, is certain, happiness cannot be bought: it is a blessing that it is not dependent on condition, that, title, wealth, station, cannot guarantee it to the possessors, or else misery would be the lot of the majority of mankind. But, let us turn to,

*The Inquiry.*

A lady residing in a county town, once observed to me, that she had taken notice that the naval officers living in the vicinity, were generally

* Mackenzie.

remarked, during their walks, to be alone; and when so, they were in appearance, the most melancholy looking beings her eyes had ever rested upon; but, that when seen with a companion, that companion was sure to be of the same profession; then, indeed, she never saw men apparently more cheerful and happy: as a sailor, she required from me an explanation. "Observe," she added as earnestly and with as serious a countenance as if discussing some point of theology—"observe, although you are a particular class, I do not believe you are bound, as some associations are, by vows extending beyond allegiance to the Sovereign"—"(And, (said I,) disavowal of the Pope's supremacy in these realms:)" "Well, well, nor are there, that I ever heard of, any mysteries in your professional compact; yet I must candidly tell you that all whom I have seen"—"Of course, present company excepted?" inquired I—"No, indeed! *all* I have seen, appeared such strange beings that, I am a little curious about the matter."

I was not exactly prepared with, nor in trim for giving an answer, having my thoughts directed at the moment towards the beautiful countenance of my fair enquirer, fancying, whilst gazing on such perfection, what a capital figure-head her bust would make for H.M.S. *Venus!* The fact was that I had "*ut nautice loquar*," dropped into the "doldrums;" musing with that fixed stare so peculiar in moments of abstraction; occasionally directing the vision, with eyes half closed, upon the handsome and intelligent face before me, yet totally unconscious of the rudeness; when, I was aroused, as if from an electric flash, from my reverie by a suppressed laugh: in an instant, I was awakened to the truth of my ridiculous position, and—don't you laugh too, good reader; I was, then, but a raw youth, and the lady very little older than myself—I "blushed scarlet!" "I see," said she, in a half ironical tone, which but increased my confusion, "I see you are a true sailor; and I have put your characteristic candour to too severe a test: perhaps, in this instance, you are apprehensive of compromising your gallantry, by using it—is it not so?"—"Not at all; and I hope I may not verify your surmise, if I acknowledge that your previous question, had set my thoughts on the wing in quite another direction.—However, I will essay to satisfy your inquiry."—She now, in turn, reddened.

I then told her that the solution might be very satisfactorily given, but that the particulars would be dry and perhaps not very interesting. She, might, however, account for the circumstances by reflecting on the peculiar life a sailor passes; its modes and forms, &c., differing much from those of any other class: in the particular train of thoughts and feelings which that life creates, and in the associations pertaining to it.

"But", said she, "the childhood of sailors has been passed on shore, and must leave an impression, yet, they appear a distinct race that cannot amalgamate with the society they fall into afterwards;—how is that?"

The inquisitive lass had now fairly thrust my ingenuity into a corner; she had cast the net of perplexity over my struggling thoughts; there was no escape. I must explicate, without using our privileged candour,

or surrender. O! what an influence these attractive daughters of Eve hold over us male geniuses; yet in matters of the heart only are we quite willing to strike and be vanquished! After a short pause, which caused her laughing eyes to sparkle with an expression of feminine triumph; I replied:—"The impression of their childhood's simplicity, it is true, as you say, remains with them; it is cherished, it is lasting; in sunshine and in storm, it is ever present; but, the progress of the young sailor's growing ideas presents nothing but changes: changes of a colouring far removed from the soft attractive tints which pervade all those pleasing visions that hollow the recollection of an early dawn. Besides, you must bear in mind that, on returning to *terra-firma*, he has a new life to learn, and in so far, he may be called a grown-up child, the rest you must conceive; you will not, perhaps, require my aid in that."

One part of the drift of my clumsy argument, seemed to strike her suddenly, as she exclaimed:—"Oh! I see; you would imply that the sailor has the wiles and the little deceptions we practice, and which to him are new, to surmount and accomplish before his *mauvais-honte* can be conquered; isn't that it?"

By her pertinacity, she had now got me, as the Yankees say, completely in a "fix"; and I felt exceedingly puzzled to find an answer that could be given without, as she had before observed, compromising my candour at the expense of my gallantry. I have no doubt, I must have looked very simple; at all events, I felt confused; and hesitated to reply: true, I laughed; but, it was, I am convinced, precisely, one of those grins which seem to mock a person who feels that he has been outwitted! She at once saw the effect of the dilemma she had forced me into; and, like a charming creature, as she really was, good naturedly came to relieve me from it. "Well, well! I will answer the question myself; I see," she continued, with a sweet smile, accompanied with an arch expression of sarcasm in her sparkling eyes, "I see you are so very polite as not to acknowledge the fact, of which I for one am but to sensible; that, sailors are much too honest of heart to be beguiled into a participation of the insincerities practiced among us." Thus ended the enquiry. And whatever I may have thought, I could not have the face to compliment her on her oracular solution, by telling her that she was a very Pythia!

Between ourselves, (I mean Blue Jackets,) we may sum up with this reflection; that there is not, as has been supposed, a want of sociability in the disposition of the sailor: the appearances from which shore-folk judge, are deceptive, and the conclusion drawn from these, false. If he does not cordially mix with the land society, it is not because he is unsociable; but, in some measure, from the observance of habitual forms and ceremonies differing in almost every particular from those he sees used on shore. It has not escaped his penetration that, the artificial composition of those parties which convene for social pleasure are, for the most part, in what is called "genteel society," made up of formality, insincerity, and unmeaning courtesy, and often of frivolity; and where

it is rare to observe the unrestrained display of natural feelings. To one therefore, who has been accustomed to speak and act as he thinks, this sort of pantomine, where, if the face be not, the feelings are masked, appears a farce into the spirit of which, it is impossible for him to enter; and, consequently it can have no charms for him, but the contrary: he feels himself under restraint: and this feeling tells him at once that, *he*, at least, is not cut out for enacting a part at all in keeping with that of the *dramatis personæ* of the *ton* theatre.

---

ORAL TRADITIONS OF THE CINQUE PORTS.—*By Capt. K. B. Martin Harbour-Master, Ramsgate.*

(Continued from page 272.)

RETURNING to the mouth of the Haven, Richborough Castle, the Rutupium of the Romans, once flanked the southern entrance of the estuary and channel, and proofs are recorded of the sea having washed its walls, and also that its mass has subsided considerably ; and there appears to be no doubt as to its insulated situation. Most historians agree that there was a swamp or morass between it and the Isle of Thanet. The backwater, or land waters of this estuary must in their primitive state have been greatly increased by the hamus or havens branching away from it into the interior of the county of Kent. Such were Irkham or Haven, Wickham, Wingham, all of which in ancient maps appear to discharge themselves into this once extensive estuary, and as they laved the massive walls of Richborough, extending as they did on the verge of a sandy stratum, it is natural they, its walls, should subside, before any disturbance of the looser soil, which, together with the circumstance of that island being covered with wood, rendered it almost inaccessible. This accounts for the number of villages at present in the island that are named after enclosures of forest-land now no longer in existence but as corn-fields and gardens. Upon the open shore, between Richborough and Deal, Cæsar landed, and the difficulties he experienced are best portrayed in the annals of himself and his noble followers. He narrowly escaped losing his whole fleet, and his galleys suffered so much that he was obliged to send Labienus into Gaul for a reinforcement. The shores of the Portus Rutupensis were strewed with wrecks. and, as Romesgate, or Ramsgate, must have formed one headland of the port or haven, at a distance of only four miles from their station, it is very rationally conjectured that some of them first landed upon Thanet in that opening. That it was formerly called Romansgate, and Romesgate, corrupted by the Saxon language into Ramesgate, many historians believe; and that it had a harbour time immemorial, Mr. Lewis, although piqued at its rising importance,

contrasted with Margate, readily admits in his history of the Isle of Thanet.

It is not a pleasant occupation to analyze the discrepancies of ancient authors, inasmuch as they are not here to vindicate themselves, or to be open to conviction: but we should pervert the truth if we did not correct mistakes which proceeded from their entire ignorance of their subject, added to some little amiable prejudices in favour of their own particular locality. Such I shall prove is the case with "Lewis's Isle of Thanet," a work, the authority of which has been quoted by Hasted and others, as an authentic history. I claim to be considered a disinterested evidence; my sympathies will remain through life with my native town Dover; but as a lover of impartial antiquarian research I condemn Lewis as a partial historian, and proceed to my proofs—proofs which were accepted by the English reviewers in 1832, and yet in a history of Kent, published in 1848, the same egregious blunders are copied. So much for *histories* in contradistinction to *oral tradition*. Let us at once bring them to the bar, and as a history of Kent, recently published has copied from Hasted or Lewis, I prefer the latter quotation—"Ramsgate a sea port, &c., &c." "The name appears to be derived from the way here, which leads through the chalk cliff to the sea, though some have supposed it to be derived from *Romangate*, but it does not appear that it was ever so written, and it was doubted whether during the time of the Romans frequenting this island, there was here, any gate or way at all to the sea, and it seems plain it was *dug* first through the cliff, as the rest of the sea gates were in this little island for the convenience of the fisheries. It does not appear that any Roman coins have ever been found here, as they have at Braidstow, where the Romans, (if they had any at all) might have a station in this island.

"*Might have a station!*" What? a highly civilised and intellectual people, have possession of a kingdom five hundred years, and not have a station immediately opposite, and only four miles removed from one of their noblest fortifications at Richboro', and on the opposite side of its estuary. But first let us examine its geological features, and see how many fishermen it would have employed to dig such a gap through the chalk cliffs. The width of the Ramsgate valley (or chalk basin as called by geologists) is more than a thousand feet. The surface of the alluvial soil is five hundred feet in width where it crosses the sea line; from the shore upward a beautifully inclined plane extends to the village of St. Lawrence rather more than a mile, the substratum in its centre is as follows:—two feet vegetable earth, one to three feet of loose boulders and shingle, being a marine deposit, two feet sea sand, containing many human skeletons and animal bones, leaving no doubt as to the struggles which took place with sea rovers in this *natural valley!* then a substratum of stiff clay to a depth of *thirty feet* from the surface and deposited *upon the chalk*, which in this basin contains also the fossil remains of the mammoth. These also rest below the clay immediately *upon the chalk*. Specimens of them are in my possession. The old paintings of Ramsgate exhibit a beautiful little valley skirted with gardens, without

a gap or precipitous entrance, and although it is covered with houses in our day, yet Rose-hill, Clover-hill, Pleasant-place, the Orchard-houses, and other derivations still remain in the names of its streets. I have traced the records of its harbour in the State Paper office, as far back as the reign of Henry the 7th, and it is there stated to have had a harbour *time immemorial.* In all old title deeds it was written Romansgatt, and I have a copper coin in my possession, dug out of the foundation of the Block-house at Gravesend of " Romansgatt, Isle of Tenet." Proceed we now to prove the facts of Roman occupation beginning at the sea shore, where as we stand, we look upon and *face* the ruins of Ruechboro'. The masonry of the present port encircled the ancient pier, which was of timber and capable of sheltering upwards of forty Baltic traders, the owners of which resided at Romansgatt, and carried on an extensive trade in timber and hemp; their names as Pier wardens are to my knowledge registered of Romanagatt, Isle of Tenet. In excavating down to the solid chalk to lay the foundation of the Patent Slipway, many coins and relics were found, and at twenty feet below the surface, the timbers of an ancient pier were uncovered. Between these timbers Roman brick and fragments of pottery were exhumed, together with the small coins of the consulate so well known to antiquarians by the wolf and twins, which I purchased and preserved, and forwarded a drawing of those discoveries to the Antiquarian society. In the rear of the harbour house a sewer was discovered in digging out a foundation, the material of which was principally the wedge shaped, ward red Roman brick, a proof by-the-bye that as to drainage, they were as far advanced in civilization as ourselves. A vessel's bottom was also exhumed, the plank of which was of extraordinary width, and between the timbers was rammed rock sulphur which remained in a very perfect state. Sicilian vessels often adopt this plan to preserve them from worm, and assist to steady them as ballast.

There is no doubt this had been a Mediterranean vessel, perhaps once of Cæsar's auxiliaries. That conqueror's historian states, that he lost so many of his galleys by the autumnal equinox, that Labienus was sent into Gaul for a reinforcement. Now as the strand upon which they lay was on the Richborough side of the estuary west of Romansgatt, and the equinoctial gales prevail from that quarter, this would be the shore to receive them, and upon which they would inevitably be driven in such storms. Thus its present geographical position identifies it with the estuary, more especially if we take into account the waste of the headland cliffs since Cæsar's invasion, which Mr. Fairholm estimated at four thousand feet. This extension would account for the names of the nearest shoals to the shore which are called the outer and inner dykes, and the valley and port of Romansgate would then be more extensive than it is even at present. During the last forty years, the waste of the East Cliff Lodge estate fully averages two feet annually; the garden wall is now falling over the precipice. During the Admiral Lord Keith's residence there, and the Princess of Wales' visit, (Queen Caroline,) the troops paraded between that wall and the edge of the cliff, and marched past by companies. A short distance farther

on, about a mile from Ramsgate Pier, at Dumpton stairs was also the remains of a Roman wall, which is now entirely gone, but Roman coins are to this day occasionally found between that point and Ramsgate harbour, and fragments of Roman pottery also.

Turn we now to the discoveries made in excavating for foundations to modern buildings; about a mile from the pier or harbour on the western cliff, a most perfect barrow was opened, containing urns with ashes and calcined bones, also fibulæ, buckles, the head and horns of a ram, and a perfect and beautiful specimen of Patera or sacrificial plate of Samian ware with the Lotus wreath. Major-General Beevor, secured the greater part of these relics. I have some of them, but I also, as in the last instance, forwarded drawings of the whole to the Antiquarian Society, and they formed the subject of a highly interesting lecture by Mr. Brandreth. These barrows are perfect, because scooped out of the chalk stratum, in which the flints are naturally deposited in regular layers like masonry, and the barrow is filled with loose chalk rubble. Two skeletons lay in this barrow, in a singular position, their feet being towards each other and their heads towards the urns, two of which were at each head of a skeleton. Some antiquaries supposed they had been mortal combatants. However, this hill had doubtless been a station from which the line of estuary was visible, and its fortresses at Richborough close at hand.

Another barrow was dug through upon the hill near St. Lawrence about a mile north of the harbour, and similar remains were exhumed, together with a heap of stones chiselled into irregular spheres or balls, and the country people humorously called them cobbler's lap-stones. I always regretted not saving one or two of these, for a remarkable coincidence has occurred since; my friend, Capt. Bullock in his examination of the Pan Sand by means of divers, (which shoal is named from the quantity of Roman pottery found around and about it,) brought on shore specimens of Stone shot exactly similar. It is not very probable that these were missiles used by the Romans with the balista, before any artillery had been invented? However to return to our position, here are three decided stations *encircling* Romansgatt, *one* west near Pegwell, *one* at St. Lawrence, and *one* at Dumpton Stairs, and at as near as possible *equally distant*, a mile, all producing indisputable evidence of *Roman occupation*, together with the remains of the ancient pier and its coins; and yet work after work is published, professing to be historical, which the geologist and the antiquary, must pronounce to be *deceptive !* While such histories are palmed upon the public, it is far more safe to give credit to oral tradition. Here are registers not to be mistaken that the ancient name of this Tower and Port was Romansgatt. It is singular enough, that Mr. Lewis writes Margate, and declares its proper name to be Mer-gatt, thus substituting one vowel for another. He writes Ramesgate for Ramsgate: now as the A has been substituted for the E in our neighbours case, may it not have taken precedence of the O in this, and restore them both to their most probable origin, and we have Mer for Mar, and Rome for Rame; thus giving to both places their most

natural derivation. Margate being open for many hundred miles to the wide spread German Ocean, and having no land to bound its horizon, itself first greeting the sight of the rovers of that sea, was very naturally called Mer or Seagate, while Ramsgate being then within the headland of the Roman estuary, and presenting the nearest point of access in Thanet, to the encampments of the invaders, would naturally enough receive the appellation of Romesgate, or Romansgatt.

In thus disputing Mr. Lewis's authority, and exposing his mistakes by the aid of recent discoveries, I have no desire to depreciate the claims of other places to antiquity, but rather to establish them also upon more open and rational views. Can it be supposed that Roman legions would occupy any one of these places, and know nothing of the rest? Such never could have been the confined scale of military operations. Mr. Lewis ridicules a publication previous to the date of his own, because the author had stated "That when Cæsar conquered this nation he landed at Romansgatt." Here he affords us another proof that such a tradition was current and believed by some ancient authors' for the individual who had thus written half a century before Mr. Lewis's time must have had some authority, now the alteration of one little word in the narrative would reconcile this matter. In lieu of nation, we read people, tribe, place, or island, then we should understand, what tradition informs us, "that when Cæsar's legions passed over from the opposite shore of the Rutupian Estuary to invade and possess Thanet, they landed at nearest valley or port, and called it Ramans-gatt."

The detachment of an invading army, at a period when the strength and resources of the country thus invested were yet unknown to them, could not take a more skilful position than a line stretching from Romangatt to Mergatt, thus occupying a space of only four miles, and covering a peninsula whose sea line was nine miles with three points of embarkation in the event of their suffering a defeat. It is impossible they could have possessed themselves of either of these points for a week without extending their operations to the other two, and there can be little doubt that Mergate and Broadstairs were also Roman stations. The Romans soon sent their victorious cohorts far into the centre of the kingdom. Is it likely they left the Isle of Tenet untouched? the shores of which on one side formed the estuary where their fleet was anchored, and on the other required defence against the Sea King pirates of the North.

The encroachment of the sea upon the chalky barrier between Ramsgate and Broadstairs is gradual and severe. The deeds of some of the estates will give an average of more than a foot loss upon the edge of the cliff every year, some by actual admeasurement seven feet in ten years, and the headlands (as before stated) at least a two feet annual waste.

Mr. Fairholm, (while preparing his work "Scripture Geology") made some very interesting remarks.

I have conversed with old fishermen who remember the cliff at Broadstairs nearly one hundred feet further out, in a sufficient projection to shelter the harbour in south-west gales. The sea wears it into arches. About the year 1826, one of these formed a cool retreat from the heat

of the sun at low water, and added much to the romantic appearance of Broadstairs' bathing sands; but three years afterwards it was washed away in a heavy gale, and the land must have lost considerably at the same time: thus it is easy to foretell that, without an artificial break-water is run out to the beacon, Broadstairs' harbour in fifty years will be quite open to south-west gales, and afford no shelter whatever. And we may also perceive that the sea is encroaching in lieu of receding, along the whole of this line of coast. The shrine of our Lady, and the broad-stairs leading up to it, are washed away, and the mariner no longer lowers his sails in token of salutation and religious devotion as he passes. At Kingsgate the arch formerly dedicated to St. Bartholemew is gone. The public-house which, in the memory of persons now living, had a garden in front, and a carriage road past, now exhibits a very singular spectacle; the front of the house is gone, and the part remaining peers over the precipice as if anxious to follow its better half into the world of waters:—1850—not a vestige now remains.

If then, our own age shows us the remains of antiquity melting away around us upon our coast, while in other countries, not far distant, islands and volcanoes rise into existence, and cities are devastated by the convulsions of nature, reflection should teach us not to be too sceptical as to the traditions of our fathers; and we will now, for our amusement, consider the accounts which have been handed down to us relative to the Godwin Sands.

The Belgic writers assert that Godwin's Isle was swallowed up by the sea. It is also a very curious fact that some of our own historians cavil about the elevation of the Isle of Thanet, and thus confirm in a great measure oral tradition. Mr. Lewis writes "I differ from Baxter, the author of the Glossarium Antiquitatum Britannicum, where the learned author names the island thus:—"Pro-Tamatide Sue Taniatides, deberet esse Tanatines, Vel Tanch Inis, quod est Infera Insula." (The Inferior or Low Island). "On the contrary, adds Mr. Lewis," our old histo-rians call it, Ruochim Inis, or the Richboro' Island; and assures us that this was the name given it by the Britons: Ninius calleth it Taneth. But why should the Britons call this island the Low Island, when it is well known to be high land, and that its cliffs are visible to our neighbours on the opposite side of the channel. Mr. Lewis forms a very natural conclusion here, for Thanet never could have been named Infera Insula, or Low Island; but it increases the probability that it was called Teneth: Teneth, from the fire beacons then said to exist upon its hills, while the Infera Insula, or Low Island, was the Godwin's Isle so described by Camden and others. The Isle was fruitful, and had good pastures situated lower than Thanet, from which there was a passage for about three or four miles by boat. Again, "without the mouth of the Thames eastward before the Isle of Thanet, lies a long shelf of quick sands, where in the year 1097 an island belonging to Earl Godwin was swallowed up, accord-ing to our annals."

Some of the early writers in describing our coast, mention two distinct islands near, or forming the mouth of the Portus Rutupium, and Cæsar

himself describes the place of his anchorage as embayed, and distinctly states that his galleys rowed into an estuary, where they made good their landing, and afterwards entrenched themselves by constructing the Urbs Rutupia, or Richborough. Now, had the Godwin Sands been under water, and the sea laving along the shore of Richborough, it must have been an open road without any shelter, and if he rowed into an estuary, he must have gone some miles beyond that point; but historians whose writings mention the existence of Tanatos, or Low Island, could not allude to Thanet, which is surrounded by chalky cliffs of considerable altitude. The Low Island must have been the estate, afterwards Earl Godwin's domains, and now the Godwin Sands; and that many other islands of this kind existed in the Northern Ocean, we have the testimony of most respectable writers. Marcus Flaminius, when portraying disasters which befel the fleet of Germanicus, after leaving the river Amicia, on the Bremen Coast, thus expresses himself: "A wide and unknown sea was before us; around were hostile shores, or *uninhabited islands*, &c." There are no islands but the solitary rock of Helegaland, at present in the North Sea upon that coast; but the Belgic traditions speak of a cluster of islands which were inhabited, and that a terrible inundation of the sea destroyed them, together with several others upon the coast of Britain, and that some thousands of the miserable natives were succoured by Edward the Confessor, and colonized in Britain. As to the sea receding from our coast because it encroached upon theirs, it is a ridiculous and confined idea.

Earl Godwin, it appears, was a sea-king, and a desperate warrior; and the number of depredations laid to his charge, has led some to suppose that there were two or more earls of that name in successive generations. The palace of the King of Kent was burnt down by Earl Godwin in his attack upon the town of Milton, in the reign of Edward the Confessor; and we also find an Earl Godwin, with his son, attacking Hythe, in the reign of Henry II., and carrying away and destroying all the vessels lying in the roads. This could not be the same personage who so treacherously occasioned the murder of Alfred, brother of Edward the Confessor, and of whose tragical end, while feasting at that monarch's table, history has given so interesting an account. We find that the first earl mentioned retired into Denmark, to mature his plans, when in difficulties: hence it may be presumed the herald is correct in denying his ignoble extraction; and that the Earl Godwins were a race of piratical and powerful chieftains, to appease and conciliate whom the Saxon kings granted lands, and bestowed appointments of trust and confidence. They had always great power and influence at sea. The tower in Dover Castle, built by one of them who was guardian of the ports, still retains his name; but that he, or any of his family, should have a sand in perpetuity is not probable. No honour or emolument could have been derived from such a circumstance.

History being so vague and unsatisfactory on this subject, no reliance can be placed upon it, some ascribing the changes which took place upon our coast to Edward's reign, a few years previous to the Norman

conquest, and others declaring that it was during the life of William Rufus, the second king of the Norman line: both accounts may be partially correct; the island might have been rendered untenable in the first instance, and totally destroyed in the second.

An old, and very curious tradition, has been handed down through successive generations, and is often repeated as a tale to puzzle, and fill the minds of children and peasants with conjectures, namely:—That the erection of Tenterden church was the cause of the destruction of the Godwin Sands. The story is related in a variety of ways, but, treating it as a fable, the following is the favourite and most amusing legend:—"Earl Godwin, in one of his predatory excursions, had penetrated into the weald of Kent, which was at that time a thinly inhabited and woody country. Here he was placed in great jeopardy by a superior force; and, lying in concealment, made a vow, that should he return in safety, he would erect a steeple at Tenterden, to the honour of the holy saints:—that he being a vacillating believer, neglected to fulfil his vow, and that the vengeance of heaven was inflicted upon him for his sins, in the destruction of his sea-girt domains." Such was the monkish legend to impose upon the credulous and superstitious. Another version was of a very opposite tendency; that, "anxious to fulfil his sacred pledge, he neglected the dams and sea-walls of his island, which thus, in an overwhelming tempest, fell an easy prey to the destroying elements." Treating them both as matters of conjecture, still they prove that our ancestors believed that such an island had been in existence; and, as the former was the most amusing, I have rendered it into verse for the entertainment of my youthful friends, who may in mature age cultivate a fondness for intellectual pursuits, from an association of the ideas which interested them in their youth.

The sparkling mead. with riot crown'd,
Beams high in Godwin's Hall;
The chieftain's lofty roofs resound
With triumph, shout, and brawl.

The bold sea-rovers, there reclin'd,
Their daring prowess boast,
Whose unfurl'd pennon to the wind
Oft awed the neighbouring coast.

And all was joy and revelrie
Around the feudal board.
When stranger sounds of minstrelsie
A silence deep restored.

Unseen the hands which touched the chord
By holy music fill'd,
Whose well known strains, to Godwin's lord,
His heart with horror thrill'd:

"Bteak we the feast!—my minstrel slain
In battle by my side;
Foul perjured vows awake the strain,
Which with him there had died."

The music ceased. the clan dispers'd,
Their several dwellings sought;
The chieftain's anxious mind rehears'd
That vow with horror fraught.

O'erwhelmed with grief, his couch he press'd,
His heart with anguish riven;
Deep wrongs to man had stain'd his breast,
His faith was broke with heaven.

Prophetic fears, and haggard sleep,
Around his pillow form
Such shades as rest beneath the deep,
Or rise upon the storm.

The tempest comes—its midnight roar
Fell on the warrior's ear,
The bursting surge assault the shore,
Strange voices ride the air.

As noises from some found'ring craft,
They sigh upon the gale;
But to Earl Godwin's soul is waft
Their melancholy hail.

"Rise, valiant Earl! whose daring arm
The power of man defied;
The northern spirits ride the storm!
Now be thy prowess tried!

Thy plighted faith to mortal man
Hath ofttimes been forsworn:
Now rise! the might of heaven to scan,
Despairing and forlorn.

Thy plighted faith at Tenterden,
Was not to Odin* given;
When, ambush'd in the forest glen,
That vow arose to heaven.

Thou to a righteous God appealed,
And thy new faith was tried;
His mighty arm was there revealed——
Thy steel with crimson dyed.

When beaming in the doubtful fight
His angel-rescue came.
What was thy promise to his might?
What to enhance his fame?

In yon fair realm a beauteous spire
With pious zeal to raise,
And found, of holy mass, a choir,
Incessant to his praise.

In this sea-girt domain to place
His cross upon the strand,
That there thy vassals should embrace
His ever just command.

Thy heart, with pious fervour then
Invoked the awful form,
The dreaded scourge of faithless men,
The angel of the storm.

Behold, I come! the 'whelming seas
Beneath my footsteps roar;
Hark! fearful sound!—thy destiny's
No more! Fair Isle, no more!

A dreadful shadow points thy doom,
Thy day of glory's past;
To wandering barks henceforth a tomb,
Where sailors shriek their last."

Amazed, Earl Godwin starts from sleep,
While horrors round him close;
Too true the visions of the deep
Which broke on his repose.

Haste! Man the barks! The tocsin ring!
A deluge pours around;
The billows o'er the ramparts spring,
And burst above the mound.

Hoarse shouts are heard along the strand——
Launch!--Launch! The storm-sail try!
Resistless seas invade the land!
Haste! to the vessels fly!

Swift to the island's leeward side,
Borne by his vassal band,
Earl Godwin launches o'er the tide,
And quits his father's land.

Amazed he sees, through shades of night,
His ruined castle fall;
And, when the morn revealed the light,
No trace of bulwark'd wall.

Too late, He cries! my broken vows
The ruined fields deform;
No more shall rovers there carouse,
And shelter from the storm.

On Stour's fair banks, retired he dwelt,
And found a refuge there;
And daily with contrition knelt
In penitence and prayer.

Then let our children's children learn
A Holy God to fear
Whose jealous ire will ever burn
If vows are not sincere!

* God of the Saxons.

---

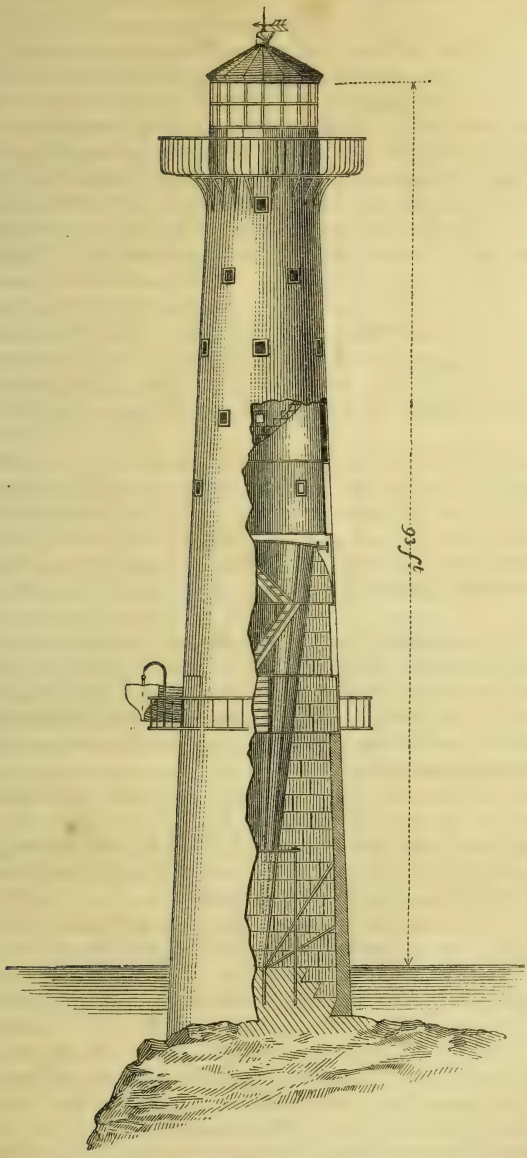
## Extracts from Notes as to a Lighthouse in the Skerki Channel*.—*By Alexander Gordon, M. Inst. C.E.*)

(Keith's Reef long. 10° 56′ 24″ E., lat. 37° 48′ 45″ N.)

Admiral Sir Francis Beaufort suggested to me the importance of a light-house in the Skerki Channel, for Keith's Reef; and having furnished me with all the information possessed by the Hydrographical Department, and enabled me to ascertain from Capt. W. H. Smyth, R.N., Capt. Sir E. Belcher, R.N., Capt. W. B. Monypenny, R.N., and Mr. G. Biddlecombe, R.N., their personal experience of Keith's Reef, I am now able to assert confidently, that a light-house can be erected on Keith's Reef, showing a light of the greatest power 100 feet or more above the sea, capable of containing stores, provisions, and water for four men, or even more for six months, and at an expense not exceeding £17,000.

A light-ship upon the Skerki Shoals has often been proposed, as there is bad holding ground on Keith's Reef, but the distance of these shoals from Keith's Reef, would render such a light-ship of little use, and the maintenance of a light-ship in such a situation, would be three times

* The original paper on this important subject is illustrated by several drawings. We can only find room for one of the drawings.—Ed., *N.M.*




more costly than a light-house. Besides she would be very liable to break adrift to the greater danger of the navigation.

The rocks are compact limestone, in extent nearly half a mile long, and one-third of a mile broad, with a small space of about six feet square, even with the water's edge. In calm weather the sea does not break, and then the rocks are not visible. Mr. Biddlecombe mentions the passage of three vessels, one, half a mile to the southward, and two others, a mile to the northward, knowing their proximity to the rock, and looking for it, and yet the rock was not observed. On another occasion with a moderate breeze it was awash, and Mr. Biddlecombe, and others landed upon the shallow spot which is covered with sea-weed. Standing on the rock, this party dropped the lead on the western side, into 14 fathoms. On the eastern side they found only 2 fathoms. At other places they found 8 fathoms. The north-east part goes off regularly. At the distance of a fifth of a mile, they found 17 fathoms, when it immediately deepens to 40 fathoms. At the distance of about a cable from their landing all round, this latter depth is to be found.

Capt. Sir E. Belcher, Capt. Smyth, Capt. Monypenny, and Mr. Biddlecombe, all agree that a metallic light-house may be founded on this reef.

The currents in the vicinity, render the approach or passage near these rocks extremely dangerous. With a north-west wind the current runs to the S.E.b.E., three knots per hour, and with the same wind it has been known to run N.N.W., at the rate of two knots per hour, but more frequently to the eastward. When at anchor in a westerly gale, Mr. Biddlecombe observed the current running E.N.E., near two knots per hour.

Soundings cannot be got at a mile distant, (excepting on a patch of 4½ fathoms limestone, in lat. 37° 50′ 5″ N., long. 10° 55′ 50″ E.,) and the currents having no positive direction around Keith's Reef which is so seldom seen, it is therefore very dangerous to all sailing vessels in the neighbourhood, and steam vessels running in calm weather could not be stopped in time after seeing the reef.

Captain Smyth is of opinion that these rocks are the remains of the islets called Arœ by the ancients.

Not only are there the remains of H.M.S. *Athenienne*, but there are a number of anchors in the neighbourhood, which, no doubt belonged to vessels which have been wrecked there.

Instead of Keith's Reef remaining as now a situation to be avoided, which frightens every navigator and causes great loss of time, let us by the erection of a light-house, make it a place to be sought as affording a fresh departure, giving security to the navigator, and preventing such losses as H.M.S. *Avenger* upon the Sorelli Rocks. Let us make it a beacon to be looked out for in the highway of the Mediterranean, and a means for avoiding many other dangers in that sea; all shippping and the many millions of property carried in either direction by sea past this channel would be benefitted. To mention only a part, the declared value of goods exported from Britain for the Black Sea, Naples, Sicily, Austrian Territories, Malta and Gozo, Ionian Islands, Greece, Turkish dominions, Wallachia, Moldavia, Syria, Palestine, Egypt and Tunis in the year 1848 was £5,900,000.

When Rudyerd constructed his wooden light-house upon the Eddystone in the year 1708 he depended upon cohesion and gravitation, and so admirably succeeded that his light-house stood the heavy seas and storms from the Atlantic for forty-seven years, and was then only destroyed by fire. If Rudyerd had had the command of iron and gun-metal he would not have used timber, and as we now have iron for the superstructure, and our choice of gun-metal plates or slabs of lead for the lower part exposed to the constant action of the sea, Rudyerd's Eddystone Light-house may well be taken as a valuable prototype.

I was soon led to the conclusion that any of the ordinary and more recent systems of sub-marine foundation, would fail in a work which must be executed at a moderate cost, and be perfectly secure in every agitation of the sea and atmosphere. I was therefore led to seek out other systems of foundation, and have now arrived at a system of submarine foundations for light-houses and beacons, which has not hitherto been applied, and of the efficiency and permanency of which no doubt can be entertained. The sketch is partly an elevation and partly a section of such a light-house as I would propose for Keith's Reef, to shew a light of the most powerful character at the height of ninety-three feet above the water level, and the tower sufficiently spacious to contain even six men (if such should be required by stress of weather) for six months, and all necessary light-house stores, provisions, and water, with ample space for exercise, and for live stock.

My first object would be to have as good an examination of the rocks as may be practicable with the view to select the best site, but I am of opinion that the peak of Keith's Reef which is awash, offers us at once a site for the necessary erection. Sir E. Belcher, Capt. Monypenny and Mr. Biddlecombe have all stood upon this peak of the rock.

My paramount object would be on landing, never to lose my hold. An iron stanchion or Lewis bolt should be fixed at every point gained, until I had selected the exact site for the light-house, and in fixing the tower to the rock I would depend both upon the holding-down ties and Lewises, and the inertia and cohesion of the mass.

A strong wrought iron bar should be at once jumped into the centre of the area of the peak, and immediately succeeded by other wrought iron bars, on which to form a crow's nest, or an open platform, from this the surface and edges of the rock could be cleaned of the large quantity of sea weed now upon it, and a small crane would enable us to have the edges of this rock trimmed and undercut, and a circular seat rudely prepared about six feet under water. It may not however be necessary to go to such a depth. A few sections of this seat will enable us to cast lead slabs weighing a ton and a half or two tons, such as can be dove-tailed into each other, and fastened together with lead joggles and dowels driven in hard, and the whole of the seams closely chinced or caulked with lead. This wall of lead will then be carried up about fifteen inches thick with the seams all chinced together below and above the water line, so as to prevent percolation of water. This lead wall where above water will have its seams all run together with a powerful blow-pipe. We

may even manage to cast the upper portion of the lead wall upon the lower part.

The original iron rods will now be at their upper ends worked into the inner and dry side of the lead wall, forming bond as we proceed. At the extreme base of the tower the water will now be shut out by warm gutta percha, and then by hydraulic cement. Lead will then be run in to make the base perfect; a core of masonry perfectly bonded together is to occupy a great part of the interior. The fixed crane post may then be built in, and thus be converted into bond and load, even if it should in some degree oxidize, the rust will do good rather than harm.

Lead is no doubt a costly article as estimated below, but its durability in salt water, the facilities which it affords for making perfect bond; its inertia; and its not being susceptible of vibration point it out as the best material under the circumstances.

The lead walls are to be carried up about twenty-four feet above the water line, and upon them and the core of masonry (the latter in many places bonded together with lead,) there will be a superstructure of cast iron bonded together with wrought iron floors and fastened down to the rock by many very strong wrought iron ties; which latter, will not (where there is moisture) be allowed to come in contact with the lead. The junction of the iron shell and the lead wall must have special attention. In the event of oxidation of the iron to any considerable extent, such plates can be removed; and if the oxidation be small, we can repair the damage by scraping away the oxidized iron and running in more lead in its place. The superstructure would be much the same as that of my other light-houses. Its cost may be estimated at £17,000.

Sir E. Belcher says "I should judge you could find fifty yards, not having more than two fathoms over it": on the other hand Capt. Mony-penny informs me that he "doubts whether an area with a diameter of thirty yards would be found having as little as two fathoms of water."

On the supposition that there might be obtained a base of twenty-four feet diameter, about ten feet below the water line, we might have a still larger tower, exhibiting a light 115 feet above water, with still more accommodation for the keepers; but such a tower would require the lower portion of the outer shell to be constructed of gun-metal, and a good deal of diving work would be required. It's cost may be estimated at £22,000.

It is possible that we may find upon examination of the rocks a cluster of pinnacles, on which might be erected a wrought iron light-house on one large central metal column, and ten smaller metal columns surrounding the same. These columns would have to terminate in gun-metel Lewised firmly into the rock; all would be framed together, and plated after the practice of iron ship building. The lower part of the central portion which is shaped like a conical wine glass, to be made of of very thick gun-metal, and the part immediately above it of thick forged wrought iron pieces capable of renewal in case of oxidation. No cast iron whatever can be trusted in this structure. The upper part would form

two stories for the keepers' apartments, a cleaning and small store room, surmounted by the light-room and the lantern. Such a wrought iron structure might be made of very great strength, would be very convenient for the light-keepers, but would not be in my opinion, so good a job as either of the other arrangements just described.

It's cost may be estimated at £17,000. But I certainly would be inclined afterwards to build up a stone, or concrete column, from the rock upwards to the spar-deck: a work which could be accomplished from the iron structure. Thereafter I would remove the ten outer legs. This would make the light-house cost £5,000 more.

Of the three forms proposed, the one shewn on the sketch is greatly to be preferred, as the necessary foundation is evidently to be had, and the very first fixtures made to the rock, form an important part of the subsequent work, and also afford safety for the working party during the time of erection.

Vessels in attendance might come close alongside on the western edge in the 14 fathoms water. It will be easy to construct an annular jetty of masonry, or Puzzolana concrete round the base if thought necessary.

The vessel in attendance upon the working party, might be anchored in heavy weather in the 17 or 21 fathoms water off the Southern Skerki, where the anchorage is pretty good in sand and broken coral. In calm weather she might be moored to strong ring bolts, to be fixed nearer the site of the light-house.

The numerous failures in light-house engineering, shew us that *cast* iron limbs are not to be trusted to.

The Trinity-House about four years ago, erected a single cast iron column, near the mouth of the Thames. It was sunk thirty-six feet into the sand, and the sea broke it off short at the surface of the sand.

The same corporation subsequently erected a cast iron beacon on the Goodwin Sands at great expense, which immediately afterwards disappeared, leaving the foundation, I believe sound. The Ballast Board of Dublin two years ago were in progress with the erection of a light-house on several cast iron columns at Connibeg, on the coast of Waterford, but all was washed away by a heavy sea.

The Trinity-House, more recently erected a light-house on cast iron columns on the Bishop Rock, which was totally destroyed by the storm of the 5th February, 1850.

I have besides information of several failures in the United States.

My opinion upon the insecurity of cast iron light-houses, upon several pillars or legs, when exposed to storms of wind and sea has been given to my light-house employers in several reports. I need here refer only to that which I had the honor to submit to the Admiralty, upon the subject of a light-house in Simons Bay, dated 9th August, 1848.

Neither is an erection upon several pillars or legs of timber to be trusted to resist heavy seas and storms. Mr. Alan Stevenson's tempo-

rary barrack on Skerryvore, though made as strong as wood and iron enabled him, disappeared in one night.

Stone for the core of the proposed light-house tower is to be had in abundance at Maritimo, where an establishment is kept for Neapolitan convicts, who may be made available in the quarries by their Government, there being safe anchorage at Maritimo for such small vessels as would be required for the transport of that stone, and of the lead and iron work. The French engineering operations at Algiers furnish us with the cost and value, and abundance of Puzzolana for concrete.

A light-house here, would be of incalculable advantage to the greater part of the Mediterranean over-sea trade, the most valuable part of which is carried on in British bottoms. Her Majesty's vessels alone in the Mediterranean can never be less in value than one million sterling. The annual cost of maintaining such a light-house and exhibiting a light of the greatest power would be £500.

A tonnage duty might be collected to cover this and repay the original cost. But I am not without hope that our Government may see that it would be a reasonable charge upon the Exchequer, and worthy of the Maritime importance of this country.

ALEXANDER GORDON.

22, *Fludyer Street, Westminster.*

---

## SAMOAN, OR NAVIGATOR ISLANDS.

THERE are very few foreigners who are not subjects of Great Britain in these islands, and the conduct of the natives towards all of them, from Her Majesty's Consul, and the missionaries downwards, is in the highest degree kind and respectful. I do not believe there is a country in the world where a white man, but more particularly an Englishman, may consider his life and property more secure, even in the middle of the distractions of war, than in this. On my visiting the district of Lulumorga, twenty miles distant from Apia, in one of the ship's boats, whither the whole of the Manono force had gone on a warlike expedition, our party landed in the midst of them with the utmost confidence, and a display of arms on our part would have been considered as unnecessary, and unusual as in any part of England, nor does any foreigner ever think of carrying arms for his protection. The plunder now and then complained of, consists of occasional thefts, (never accompanied by violence,) committed in the provision-grounds during their owner's absence, and appears to me to be far less than would occur in any other country under like circumstances. In the few cases of wrecks which have lately happened, the people have all been well treated; and although in one or two instances attempts have been made to keep some of the property saved, it has always been given up on a proper demand being made to the chiefs; and it should be remembered that here, as in all the Polynesian

Islands, before the introduction of christianity, wrecks were considered offerings made to the gods.

Mr. Pritchard also informed me that the difficulties first encountered by him in procuring a site for a house, &c., have been removed, he having now purchased as much as he requires for that purpose; and that the practice of killing his horses, which arose from ignorance of their use, and the damage done by them to the young bread-fruit trees, is quite discontinued.

The great disadvantage these islands (especially Upolu and Savau) lie under, is the want of anything approaching to a government. Even where the "malo," or power, lay with any district or party, it never seems to have been exerted in making laws, but in oppressing their neighbours. There exists a code of Commercial Regulations, drawn up by Capt. Wilkes, of the United States Navy, for the whole of the Samoan Islands, signed by some of the principal chiefs of Upolu; but there is no authority to enforce any of its enactments. A harbour duty of five dollars is paid by all merchant ships to Pea, or Poneis, Chief of Apia; but it is looked upon in the light of a private present, and serves no purpose but that of throwing a little more money into the hands of the European traders. Were the present vexatious wars at an end, it would be very desirable that the attention of this people should be turned towards the formation of a code of laws, and the establishment of some authority strong enough to put them into execution. From their oratorical habits, and the custom of determining everything in "fonos," or councils, which are conducted with admirable order, and great politeness, I should think them much more fitted for the arts of government than for war, for which they certainly have no genius. I have no doubt the influence of Her Majesty's Consul will be directed towards this most desirable object, when peace will admit of it; and I am sure that any suggestions from an officer in Her Majesty's employment, will always receive attentive consideration from the natives.

Only one complaint of the conduct of a British subject, was brought before me by some of the chiefs, and that was merely of the practice of overreaching them in money transactions. I took the opportunity of acquainting the individual, however, that the chiefs had full power to remove from the country foreigners who did not behave with obedience to the laws they might think proper to make; and that should any well-founded complaint of bad conduct be made to me, accompanied by a request that the person offending might be removed from the Island, I should not hesitate to comply with it. I believe this intimatiou will have a good effect among the British residing here; who, however, are in general very well behaved.

The whole of the population of Manua, and nearly all of Tutuilla, have embraced christianity; and both have absolutely refused to take any part in the war. Tutuilla has the advantage of some form of government; there being seven ruling chiefs, who decide upon measures for the general adoption. I was informed that the small portion remaining of the heathens (not above 100), would willingly have joined their brethren in Upolu, but are prevented by the decision of the chiefs, who have

prohibited all intercourse with that island during the continuance of hostilities. Several chiefs whom I met at Pago Pago, particularly Mouna, the head of that district, spoke to me of their strong attachment to Great Britain, and their determination to cultivate the arts of peace. No complaint of any kind was brought to me at either of these places.

From all the accounts I could collect, the population of these islands seems to be diminishing, more particularly during the last year and a half, principally from the effects of the hooping cough, supposed to have been brought from Tahiti, about ten months since, and which has run through the whole of the group. The number killed in wars is inconsiderable, and is not estimated at more than 200 since its commencement; but the diseases incident to bad food and exposure, are said to have occasioned a considerable mortality. Those best acquainted with the subject, consider the diminution to be not less than 5 per cent. in the above period.

The natives are beginning to have a good notion of the value of money, particularly at Apia, where many whalers touch, who trade also, and where goods may be bought from several storekeepers. The islands seem fit for growing every tropical production, and there is a great quantity of rich level land in all. Their only staple, however, (with the exception of a little arrowroot, which fetches a tolerable price in the Sydney market,) is cocoa-nut oil, worth on the spot £12 a ton, which sells in London for £40. Their contributions to the Missionary Society are generally made in this oil, and they also barter it for goods with the storekeepers. The greatest quantity produced in any year has not, however, exceeded 100 tons, the result probably of a few weeks' labour. Ten times that quantity might be raised without any difficulty from the present trees, as immense numbers of cocoa-nuts are left to perish; and should they turn their attention to planting for the purpose, it is impossible to say to what amount this valuable article might be produced.

A few small vessels trade from Sydney, but the wants of the people are principally supplied by American whalers, who as mentioned above, trade also.

There are a few cattle on the island, most of them the property of Mr. Pritchard, and Mr. Williams, the Consul of the United States; who supplied us with good beef at a moderate rate, as well as yams, and pumpkins. From both these gentlemen I received every assistance during our stay at Upolu, as well as from the missionaries, whose influence with the native population is deservedly great.

---

## GREAT CIRCLE SAILING.

22 *Albert Square, Stepney,*
*London, 29th April*, 1850.

SIR.—Seeing by your number for last month, that you acknowledge the receipt of my communication on the composite tracks from Trinidad to

Port Adelaide, I have devoted a little time to working out the same from Sydney, N.S.W., to a position off Cape Horn, in the hopes that you will give it a place in your valuable journal and oblige,

Yours &c.,

JOHN BURNETT.

*To the Editor N.M.*

To sail from Sydney, N.S.W., towards England, by the eastern passage round Cape Horn, it will be seen by a glance at the chart, that the navigator has the choice of three separate routes. 1st.—That by the south of the Southern Island of New Zealand. 2nd.—That through Cook's Straits; and thirdly, that by the North Cape of the Northern Island. And to sail on the composite track towards Cape Horn, any of the three above routes may be adopted according to the season of the year, and the winds that may prevail at the time of leaving Sydney. By assuming 57° south as a maximum latitude, the first part of the composite track on the arc of a great circle, to that maximum latitude, passes over the southern part of the South Island of New Zealand, and is therefore impracticable. By sailing on the arc of a great circle from Sydney Heads, to a position to the south of the South Cape of the southernmost Island, New Zealand, in lat. 47° 32′ S., long. 167° 20′ E., and from that point on the arc of a great circle, whose maximum latitude is 57° S., we have thus the shortest distance that can be sailed on the composite track, from Sydney Heads, to a position off Cape Horn in lat. 57° S., long. 68° W., which amounts to 5407·8 miles, and taking the same points by Mercator's Sailing, the distance is 5685·8, the composite being 278 miles less.

Secondly, by passing through Cook Straits, and sailing on the composite track to the same position off Cape Horn, the distance is 5518·9 miles, and by Mercator's Sailing 5846·5, the composite being 327·6 miles less; and lastly by taking the northern route by Cape North, the distance on this composite track, will be to the same position off Cape Horn 5937·1 miles, and by Mercator's Sailing on the same route 6146·8 miles, the composite track being 209·7 less.

Hence it will be seen that the southern composite track, is 111·1 miles less than the middle composite track, and 160·7 miles less by Mercator's Sailing than the middle track. And that the southern composite track, is less than the northern composite track 529·3 miles, and 461 miles less than the northern track by Mercator's Sailing. But the composite track by the southern route, is less than the course by Mercator's Sailing by Cook Straits to Cape Horn, by 438·7 miles, and less than the northern route, by Mercator's Sailing, by 739 miles; thus shewing the greatest distance that can be saved on this passage, between the composite track south of New Zealand, and Mercator's Sailing by the north of New Zealand.

The difference between the Great Circle Track, and that by Mercator's Sailing from Sydney, to the positions at New Zealand is so small that it need hardly be taken into account, that to the south position being only 1½ miles, to the middle one 3½ miles, and to the northern

one 2 miles, although I have computed those distances spherically for the composite tracks. It may be here observed, that the navigator must be guided by the season of the year, in approaching the maximum latitude, as in one season it might be safe to run down the longitude in 57° S., from 148° W. to 68° W., when in another season it would be imprudent to advance so far south, until nearly on the meridian of Cape Horn, the parallel of which, or about 57° S., all ships must reach in order to round the Cape safely.

I herewith send you the positions with courses, and distances for the southern composite track from Sidney to Cape Horn, also the positions for the inner composite tracks from Cape Palliser, and Cape North to Cape Horn, by which any navigator can lay down the tracks on his chart for his guidance, if desirous of adopting either of them on his homeward voyage from Sidney; but I fear I have drawn this article out to a greater length than your valuable columns can afford space for.

J. B.

Positions on the composite track from Sidney, N.S.W., by the south of New Zealand to lat. 57° S., and long. 68° W.

| POSITIONS. | LAT. | | | | LONG. | | | | COURSES. | | DISTANCE. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ° | ′ | ″ | | ° | ′ | | | ° | ′ | |
| Sidney N. S.W. | 33 | 52 | | S. | 151 | 16 | | E. | | | |
| 1st. Pos. Eastward | 37 | 46 | 37 | | 155 | 0 | | | S. 37 | 44E. | 296 ·5 |
| 2nd " " | 42 | 16 | 10 | | 160 | 0 | | | 40 | 26 | 354 |
| 3rd " " | 46 | 0 | 42 | | 165 | 0 | | | 43 | 47 | 311 |
| 4th off Cape South. | 47 | 32 | 0 | | 167 | 20 | | | 46 | 24 | 132·5 |
| 5th " " | 48 | 47 | 23 | | 170 | 0 | | | 54 | 42 | 130·5 |
| 6th " " | 50 | 50 | 0 | | 175 | 0 | | | 57 | 38 | 229 |
| 7th " " | 52 | 30 | 56 | | 180 | 0 | | | 61 | 31 | 211·5 |
| 8th " " | 53 | 52 | 50 | | 175 | 0 | | W. | 65 | 30 | 197·5 |
| 9th " " | 54 | 58 | 0 | | 170 | 0 | | | 69 | 31 | 186 |
| 10th " " | 55 | 48 | 4 | | 165 | 0 | | | 73 | $37\frac{1}{3}$ | 177·5 |
| 11th " " | 56 | 24 | 20 | | 160 | 0 | | | 77 | $46\frac{1}{2}$ | 171 |
| 12th " " | 56 | 47 | 46 | | 155 | 0 | | | 81 | $55\frac{1}{3}$ | 166·5 |
| 13th " " | 56 | 58 | 58 | | 150 | 0 | | | 86 | $5\frac{1}{3}$ | 165 |
| 14th Par. sailing in from lon. 148° W. lon. 68° W | 57 | 0 | 0 | | 147 | 51 | 48 | | 89 | 11 | 70 |
| | 57 | 0 | 0 | | 68 | | | | East. | | 2609·5 |

Distance on Composite track 5408 miles.

By Mercator's Sailing 5686 "

Difference saved 278 "

Positions on the composite track from the North Cape of New Zealand in lat. 34° 47′ S., long. 173° 4′ W., to the maximum lat. 57° S., and

long. 123° 23′ 17″ W., the course being east from that position to long. 68° W.

| POSITIONS. | LAT. | | | LONG. | | | REMARKS. |
|---|---|---|---|---|---|---|---|
| | ° | ′ | ″ | ° | ′ | | |
| Cape North. | 34 | 47 | 0S. | 173 | 4 | E | This arc of a great circle passes over a part of the North Island, but a ship steering along shore from the North Cape to the East Cape, and then towards Chatham Island until reaching the line of the great circle, will lose very little distance as these positions will shew. |
| 1st. Pos. E | 35 | 0 | 0 | 175 | 0 | " | |
| 2nd | 39 | 15 | 0 | 180 | 0 | " | |
| 3rd | 43 | 43 | 6 | 175 | 0 | W. | |
| 4th | 46 | 46 | 30 | 170 | 0 | " | |
| 5th | 49 | 1 | 22 | 165 | 0 | " | |
| 6th | 51 | 1 | 34 | 160 | 0 | " | |
| 7th | 52 | 40 | 21 | 155 | 0 | " | |
| 8th | 54 | 0 | 25 | 150 | 3 | " | |
| 9th | 55 | 4 | 55 | 145 | 0 | " | From Sydney to Cape North on the Arc. 1080·8 |
| 10th | 55 | 52 | 30 | 140 | 0 | " | |
| 11th | 56 | 27 | 24 | 135 | 0 | " | |
| 12th | 56 | 49 | 30 | 130 | 0 | " | On the Arc to Max. 2855 |
| 13th | 56 | 59 | 23 | 125 | 0 | " | Parallel Sailing 2001·3 |
| 14th | 57 | 0 | 0 | 123 | 23 | " | Dist. on Com. track. 5937·1 mile |

Positions on composite track from Cape Pallisser in lat. 41° 24′ S., long. 175° 41′ E., to the maximum lat. 57° S., and long. 129° 14′ 37″ W., the course being east from that position to long. 68° W.

| POSITIONS. | LAT. | | | LONG. | | | REMARKS. |
|---|---|---|---|---|---|---|---|
| | ° | ′ | ″ | ° | ′ | ″ | |
| C. Pallisser. | 41 | 24 | 0 S. | 175 | 41 | E | |
| 1st. Pos. E. | 44 | 14 | 0 | 180 | 0 | " | |
| 2nd | 47 | 3 | 14 | 175 | 0 | W. | From Sidney to Cape Pallisser on the Arc 1239·9 |
| 3rd | 49 | 23 | 35 | 170 | 0 | " | |
| 4th | 51 | 19 | 54 | 165 | 0 | " | On the Arc to Max. 2277·7 |
| 5th | 52 | 55 | 19 | 160 | 0 | " | Parallel Sailing 2001·9 |
| 6th | 54 | 12 | 25 | 155 | 0 | " | |
| 7th | 55 | 13 | 15 | 150 | 0 | " | Dist. on Comp. track 5518·9 |
| 8th | 55 | 59 | 24 | 145 | 0 | " | The positions of the head lands are taken from Kerrigan's work.* |
| 9th | 56 | 32 | 4 | 140 | 0 | " | |
| 10th | 56 | 52 | 3 | 135 | 0 | " | |
| 11th | 56 | 59 | 52 | 130 | 0 | " | |
| 12th | 57 | 0 | 0 | 129 | 14 | " | |

* They would have been much more correctly taken from Raper's Tables, which we pointed out to our readers in the early numbers of this year's volume. For instance Cape Pallisser, by Raper, is in 41° 38′ and 175° 21′, differing no less than 14 miles of latitude, and 20 minutes of longitude from that of Kerrigan. Verily our short sailing will not avail much, if it is to depend on such assumed false starting posts as the above. We recommend our correspondent to see to this, and can assure him he should depend on *Raper's Positions* sooner than on Kerrigan's, or any other, as Raper has considered and discussed them in many of our former numbers.—Ed. *N.M.*

COLLISIONS OF MERCHANT SHIPPING.—*Extracts from the Shipping Gazette*

58. *Weymouth, March 6th.*—The *Marnhull*, Newman, from Hartlepool for this port, with loss of bowsprit, figure-head, and cutwater, besides other damage, having been run into by the *City of Boulogne* steamer, in the Gull Stream, on the morning of the 4th inst.—*March 7th.*

59 *Cuxhaven, March 4th.*—The *Avance*, Froberg, which sailed hence for Mantanzas 28th ult. put back yesterday with considerable damage, and is discharging, having been in contact with a vessel.—*March 8th.*

60. *Milford, March 9th.*—Put in, the *Fame*, Clay, from Southampton for Newport, with loss of bowsprit and jibboom, having been in collision with the *John*, Berryman, off Padstow, 8th inst.—*March 11th.*

61. *Portsmouth, March 11th.*—Wind S E., fine, put in, the barque *Commerce*, Krehft, of and for Memel from Torrevieja, last from Cowes, with loss of bowsprit, cutwater carried away, and other considerable damage, having been in collision off Beachy Head, at 4 o'clock, A.M. this day, with the barque *Tay*, Langwell, from London for Cardiff and Panama, which vessel had bows stove in, and other damage; and has also put in.—*March 12th.*

62. *Plymouth, March 11th.*—Put in, the *Victorine Louise*, with bows stove, and considerable damage to sails, spars, &c., having been in contact, on the 7th inst., with an American ship.—*March 12th.*

63. *Plymouth, March 11th.*—The following are the details of the collision of the American ship *Jane E. Williams*, with the mackerel boat *Blackeyed Susan*, which we reported yesterday :—

This forenoon the fishing-boat *Ono*, belonging to and commanded by John Johns, of Penzance, brought ashore a part of the crew of the mackerel boat *Blackeyed Susan*, Wm. Lake, run into the previous night off the Start, by the American barque *Jane E. Williams*, Masson, from Antwerp for New York. The *Blackeyed Susan* was lying to her nets with the usual light, when she was struck by the barque, stem on, on her port side, right amidship, and her mizen-mast went by the board. The master and five hands succeeded in getting over the bows of the barque, the master of which treated them with every attention, and, lowering his boat, sent the master on board his shattered vessel, where he remained. The weather being thick, Mr. Masson could not again discern the *Blackeyed Susan*, and took the first means of landing his portion of her hands, to whom he gave the following document :—

" Barque *Jane E. Williams*, of New York, March 9.—Last evening, about 8 o'clock, was running west with the wind east; saw a light right a-head, and the helm was put a-port, when a stronger light was shown from the fisherman, which showed me she was heading to the north. Supposing that she was under weigh, our helm was shifted to starboard, in order to go under her stern, but being so near we could not clear her, although our heading was nearly stopped. Six men succeeded in getting on board the barque, and one fell overboard, two remaining in the fishing boat. I immediatety, lowered our boats, when the master of the fishing boat and three men from barque went alongside, and found she was not leaking, although badly injured. The master remained on board, and my boat returned, when I hauled by the wind, and have been standing off and on all night in order to land the men as near home as possible.—Thomas J. Masson, Master barque *Jane E. Williams*, of New York.

The barque has pursued her voyage, and has on board about 120 emigrant passengers, and the crew of another American ship wrecked on a voyage to Antwerp. They were changing watches on board at the time of the accident (8 o'clock), and there was a great number of fishing boats near. The

*Blackeyed Susan* belongs to Mr. Shuckford, of Yarmouth, who is residing here.

The *Blackeyed Susan* was towed in late last evening. William Dingle was drowned in his effort to board the barque. Besides the loss of her mizen, the mackerel boat had her foremast carried away, bulwarks and stanchions broken, and her scaffolds, on which the mainmast lies, considerably damaged.—*March 12th.*

64. *Sheerness, March 13th.*—The schooner *Hero*, Foster, of Rye, from London for St. Michael's, put in here this morning, with main boom broken, having this morning been in collision with a brig, (name unknown) a short distance above the Nore light-vessel.—*March 14th.*

65. *Lowestoft, March 13th.*—Put in, the brig *Rye Merchant*, Padgham, of and from Rye for Seaham, with loss of bowsprit, &c., having been run foul of whilst at anchor in our roads by the schooner *Olive*, Arnold, of Gravesend, about midnight.—*March 14th.*

66. *Falmouth, March 13 : 12.*—Wind east, fair 13—north fair 12—The *New Hope*, Jones, of Beaumaris, for Liverpool, put in here to-day, with loss of cheeks of mainboom, bulwarks, stanchions, running rigging, &c., having been in contact during the night of the 9th inst., off the Owers, with the Norwegian brig *Vidar*, Christiensen, from New York for Rotterdam; the latter got her jib-boom carried away, and bulwarks stove.—*March 14th.*

67. *Falmouth, March 14th.*—The *John*, Berriman, of Youghal, from Newport for Plymouth, having been in contact on the 8th inst., 14 miles off Padstow, with schooner *Fame*, of Youghal, and lost jib-boom, bow rail, bulwarks, and stanchions, from the fore rigging forwards.—*March 15th.*

68. *Elsinore, March 9th.*—The *Scottish Maid*, Matthew, of Sunderland, sustained damage to her bowsprit, having been in collision yesterday with the *Kronprindsen Lorezen* of Christiansund.—*March 15th.*

69. *Copenhagen, March 7th.*—The Russian brig *Ekenas*, Kavn, from Hartlepool, has landed here the crew of the brig *Exquisite*, Copperthwaite, from Sunderland, which was wrecked 2nd inst., near the Scaw.—*March 15th.*

70. *Cowes, March 15th.*—Wind east, the Belgian barque *Koophandel*, Beeckman, from Antwerp for Havana, put in to-day with loss of mainyard, mizen topmast, and other damage, having been in contact with a brig (supposed English) off Dungeness.—*March 16th.*

71. *Jersey, March 15th.*—Eight French sailors arrived on Monday evening, who were wrecked on Sunday night. They formed part of the crew of the *Union*, Danic, from Quillebœuf for Leghorn, which vessel was run down 21 or 22 miles south-east of Barfleur, by the Fides, American emigrant ship, from Havre for New Orleans. The crew saved themselves by clinging to the Fides, whose master put them on board a Jersey fishing cutter, which landed them on Monday at Gorey, whence they were taken to St. Helier, where the French vice-consul, Mr. Simmon, showed them the utmost kind attention. They had saved nothing but what they had about them at the time of the *Union's* being run down. They left on Tuesday by the *Jane* for St. Malo.—*March 16th.*

72. *Holyhead, March 17th.*—American barque *John S. de Wolf*, Roberts, 40 days from New Orleans, reports as follows :—14th ult., got in contact with the brig *Lena*, of Liverpool, from London for Liverpool, in lat. 51° 12′, long. 6° 45′ W.; cut us down four planks on the starboard side below the covering board, with the covering board, main and top-gallant rails, and bulwarks and two stanchions, and considerable damage to the side down to the water's edge; likewise his jib-boom was torn, and our foresail considerably.—*March 18th.*

73. *Penzance, March 16th.*—Put in, the *Ranger*, Duggua, from Liverpool, for Dordit and Elsinore, with loss of bowsprit, and having been in

collision with a barque, about 1 A.M., off this bay, (barque's name unknown); appeared to be a foreigner.—*March 18th.*

74. *Queenstown, March* 16 : 15.—Wind south-east, strong gale, clear. The *Creole*, Donna, of Dublin, from Cadiz for London, put in here to-day with loss of bowsprit, cutwater, jibboom, fore-top-mast, &c., having been in contact March 12th, at 11 A.M., off Scilly, with a large barque, which lost foremast, &c. The *Creole* hailed and requested the stranger to stand by her, but the stranger proceeded without taking any notice.—*March 18th.*

75. *Rochester, March* 18*th.*—Wind north-east, fresh, frosty. The *Eagle*, Borthwick, arrived here, reports that while passing through Yarmouth Roads, on the 16th, was run into by the *Emperor* steamer, and carried away rails, and sustained other damage.—*March 19th.*

76. *Portsmouth, March* 18*th.*—The *Rover*, Mullinger, from Shoreham, put in here to-day with loss of foremast, bowsprit, and larboard bulwarks, having been in contact with a schooner in Littlehampton Roads.—*March 19th.*

77. *Cardiff, March* 18*th.*—The schooner *Fame*, Pavey, whilst on her voyage from Waterford for Cardiff, on the 15th inst., at 12h. 30m. A.M., Ilfracombe bearing S.E.b.S., distance 10 miles, reaching on the starboard tack, was run into by the smack *Trio*, Williams, of Penzance, from Port Talbot; she was running before the wind, and did the *Fame* considerable damage, striking her on the starboard bow, carried away fore-top-mast and gear about the bows, &c. Took the smack in tow for about one hour and half, when the rope parted, and the smack immediately disappeared; her crew, of three persons, saved on board of the *Fame.—March 20th.*

78. *Huna, Pentland Firth, March* 17*th.*—Yesterday the fine barque *Exporter*, Robertson, of and from Leith for St. John's (N.B.), in coming out of Longhope, came in contact during a calm with the *Moselle* barque, from Leith for Australia; when the former vessel got on shore at Snelster, betwixt Cantick Head and Aith Hope, and it is feared will become a wreck; the crew and their clothes are saved. When my informant left, the *Exporter* was about being stripped of her rigging and sails. I have not heard what damage (if any) the *Moselle* sustained, it is said she lost her anchors. The *Exporter* had a pilot on board.—*March 20th.*

79. *Wick, March* 17*th.*—The *Exporter* Robertson, of and from Leith for St. John's (N.B.), got on the rocks at the back of Cantic Head yesterday, and is likely to become a wreck. The accident was owing to her having being in contact with the *Moselle*, of and from Leith, which lost an anchor, and chain in the Firth, and will have to put back to Leith.—*March 20th.*

80. *Skibbereen, March* 15*th.*—The *Affecto*, Puga from Viana, for Queenstown, has been towed into Baltimore to day, completely dismasted, and with bowsprit carried away, having been in contact off Castletownsend with a Liverpool liner, bound to New York.—*March 20th.*

81. *Dover, March* 20*th.*—Put in the *Christian*, Bender, from Hamburg for Vera Cruz, with damage to starboard bow, bulwarks, &c., having been in contact during the morning with the *Richard Mount*, Ford, off the South Foreland.—*March 21st.*

82. *Longhope, Orkney, March* 19*th.*—The *Exporter*, Robertson, for St. John (N.B.), in turning out of Cantick Sound, came in contact with the *Moselle*, Thomson, and was forced towards the shore by the rapidity of the tide. Both vessels drifting close to the rocks, with no wind, the *Moselle*, cast anchor ahead of the *Exporter*, when they again came in collision, and the *Exporter* was forced on the rocks, opposite the Pentland Firth, (as previously reported in the *Shipping and Mercantile Gazette*): she is a total wreck; all hands saved. The sails and rigging are in course of being saved, and part of cargo, in a damaged state.—*March 23rd.*

83. *Harwich, March 23rd.*—The *Hopewell*, Elsworth, from London for Keadby, was run into this afternoon, while at anchor in the harbour, by the *Neptune*, Southgate, of Colchester; carried away the *Hopewell's* bowsprit, and did other damage.—*March 25th.*

84. *Lynn, March 24th.*—The *Riveresco*, Farley, which put back (as reported in the *Shipping and Mercantile Gazette* of Saturday), has lost her jib-boom, having been in collision.—*March 25th.*

85. *Exmouth, March 24:* 23.—Put in, the *Feronia*, Tupman, from Arklow for Newcastle, coming in, was in contact with the *Friends*, Litten, from Neath, which had foreboom carried away and foresail split. The *Feronia*, had jibboom and mainsail carried away.—*March 25th.*

86. *Milford, March 24th.*—The *Latimer*, Evans, from Willmington (U.S.) for Liverpool, having been run into, on the 20th inst., at 3 A.M., by a French vessel (name unknown); carried away jibboom and bobstay, and bowsprit shrouds.—*March 25th.*

87. *Fishguard, March 23rd.*—The *Lily*, Lamb, from Milford, got in contact with the *Rev. Theobald Mathew*, and has carried away bulwarks and stanchions. The latter has not received damage.—*March 25th.*

88. *Yarmouth, Norfolk, March 26th.*—Wind north-west, fine. The *George and Margaret*, Darling from London for Shields, on the 24th inst., whilst riding in Yarmouth Road, the brig *Zaida*, of South Shields, in geting under weigh, came in contact with her, and carried away the former's mainboom, sprung the main mast, and did other damage.—*March 27th.*

89. The schooner *Ann and Sarah*, Forbes, of and from Portsmouth for Sunderland, when off Winterton yesterday, at noon, was in contact with the brig *Cove*, of Blyth, which did her considerable damage. Mr. Forbes, the master, wishes to state, through the medium of the *Shipping and Mercantile Gazette*, that as soon as the vessels cleared each other the *Cove* made all sail away, not stopping to assertain the extent of damage his vessel, the *Ann and Sarah* had received, or to know whether she was in a sinking state, which he considers very unseamanlike, his vessel being a small laden schooner, and the other being a large light brig. Both vessels have come into the harbour.—*March 27th.*

90. The *Favorite*, Baker, of and from London for the Baltic, arrived in the roads, and reports having been in contact with the *Cove*, of Blyth, which carried away her mainboom, &c.

91. *Liverpool, March 26th.*—The *Tagus*, for Lisbon, which was in contact yesterday with a steamer, was also in contact in the river with the *Theresa Jane*, for Maranham, which lost some stanchions and bulwarks.—*March 27th.*

92. *Berwick, March 27th.*—The *Coaster*, Moffat, for Yarmouth, which brought up at the Fern Islands, March 22nd, was soon after run foul of, by the *Maxwell*, Anderson, of Dundee; the crew left her and went on board the *Maxwell*, and on the 25th she sank in 10 fathoms water.—*March 28th.*

---

THE following important tables have just been drawn up and published by Mr. Rucker, underwriter to the corporation of the London Assurance. They contain some important information and will shew that "sea risk" from collisions alone is no trifling matter in the question of marine insurance, from a due consideration of which perhaps some benefit may be produced. Our correspondent Capt. Biden will thus see with the assistance of our monthly list of collisions and the tables of Mr. Rucker that the opinions entertained by us in common with many others as to these matters, are not far wrong; and that, indeed, as mercantile shipping have increased so have these. For the present we propose

substituting this monthly list in lieu of our tables of wrecks, the number of vessels in which we find, large as it is, has fallen even short of the returns made to the House of Commons.

Note 1.—The damages shewn in this statement having been assumed from the nature of the reports in Lloyd's List, it should be observed.

1st. That, whenever, by stress of weather, a vessel had parted from, or had been compelled to slip from her anchors, and in consequence thereof had been in contact with another vessel; also, whenever a vessel at anchor had been driven foul of another vessel at anchor, such collisions have been excluded from this statement.

2nd. That, except in the case of vessels reported to have sunk, sailing vessels not identified are not included under any of the heads as damaged.

3rd. That all identified sailing vessels and all unidentified steamers which are simply reported as having been in contact, are included with those that are *reported* as "slightly damaged."

4th. That all vessels which (having lost important spars) have been *assisted into port* are included with those that are otherwise reported as "considerably damaged."

5th. That of the vessels classed as "seriously damaged", 31, or one-sixth part were sunk or abandoned, and afterwards raised or brought into port derelict, &c.

6th. That sailing vessels not identified, reported to have sunk, are included under the head of "sunk, &c."

There are nine collisions in which both vessels sank.

Note 2.—In the course of the five years there were, six steamers in contact with unidentified sailing vessels, four reports with three sailing vessels; one report with four sailing vessels; one report with three vessels, viz: one steamer and two sailing vessels; one report with four vessels, viz: one steamer and three sailing vessels; one report with three vessels, viz: two steamers one sailing vessel, and eight unidentified sailing vessels sunk; (the two steamers classed in contact together, the sailing vessel as in contact with steamer,) which will correct any apparent discrepancy, on a comparison of the figures in the above statement.

Note 3.—H.M. Ships and steamers. There are four instances of H.M. ships, and eleven of H.M. steamers being in contact with other vessels; also one instance of collision between two of H.M. ships, and one of two of H.M. steamers.

Note 4.—The number of vessels registered in the United Kingdom on the 31st of December 1844, was 23,253; and on the 31st of December, 1849, was 25,071, and of the 591 identified vessels in contact in 1845, 428 are recognized as British vessels; and of 556 in 1849, 416 are recognized as British vessels.

Note 5.—Of the collisions above enumerated 164 in 1845, and 142 in 1849, occurred in the English and Irish Channel, and parts adjacent; 138 in 1845, and 134 in 1849, occurred in the North Sea; 34 in 1845, and 31 in 1849, occurred in the Baltic and Mediterranean, (including the Cattegat and Straits of Gibraltar); 46 in 1845, and 33 occurred in other parts.

Inasmuch as a reluctance to report accidents of this character, is induced by the law that renders the owner responsible to the extent of the value of his ship and her freight for any damage occasioned to another vessel by the negligence or want of nautical skill of the captain and crew, many collisions are probably never reported at all: the foregoing statements must therefore be considered with due attention to this circumstance.

JOHN A. RUCKER,
*Underwriter to the Corporation of the London Assurance.*

*London, April 20th* 1850.

| Months. | | Collisions of Steamers and Sailing Vessels. | Collisions of Steamers | Total Steamers in Collision. | Total Identified Vessels in Collision. | Steamers not Identified in Collision. | Sailing Vessels not identified in Collision. | Total Collisions extracted. | Damaged. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Sunk, run down, Abandoned &c. | Seriously. | Considerably. | Slightly. |
| January ..... | 1845 | 5 | 0 | 5 | 62 | 0 | 14 | 38 | 5 | 7 | 41 | 36 |
| " | 1846 | 4 | 0 | 4 | 87 | 0 | 21 | 54 | 10 | 4 | 18 | 55 |
| " | 1847 | 5 | 2 | 9 | 94 | 0 | 23 | 57 | 4 | 4 | 24 | 62 |
| " | 1848 | 6 | 0 | 6 | 57 | 2 | 15 | 37 | 10 | 4 | 12 | 33 |
| " | 1849 | 1 | 1 | 3 | 58 | 0 | 10 | 34 | 11 | 2 | 14 | 31 |
| February..... | 1845 | 0 | 0 | 0 | 46 | 0 | 14 | 30 | 5 | 3 | 10 | 28 |
| " | 1846 | 1 | 0 | 1 | 41 | 0 | 7 | 24 | 4 | 2 | 9 | 26 |
| " | 1847 | 4 | 0 | 4 | 61 | 1 | 22 | 42 | 2 | 5 | 20 | 35 |
| " | 1848 | 4 | 0 | 4 | 66 | 0 | 18 | 42 | 6 | 5 | 15 | 40 |
| " | 1849 | 0 | 0 | 0 | 60 | 0 | 14 | 37 | 6 | 5 | 13 | 36 |
| March..... | 1845 | 2 | 0 | 2 | 49 | 2 | 13 | 32 | 3 | 2 | 11 | 36 |
| " | 1846 | 3 | 0 | 3 | 36 | 0 | 10 | 23 | 4 | 1 | 8 | 23 |
| " | 1847 | 5 | 1 | 7 | 72 | 0 | 16 | 44 | 4 | 5 | 21 | 42 |
| " | 1848 | 4 | 1 | 6 | 73 | 1 | 12 | 43 | 2 | 4 | 22 | 46 |
| " | 1849 | 4 | 0 | 4 | 48 | 1 | 11 | 30 | 7 | 4 | 10 | 28 |
| April..... | 1845 | 2 | 0 | 2 | 59 | 2 | 13 | 37 | 8 | 4 | 14 | 37 |
| " | 1846 | 2 | 0 | 2 | 35 | 1 | 6 | 21 | 5 | 3 | 6 | 22 |
| " | 1847 | 6 | 1 | 8 | 43 | 2 | 15 | 30 | 3 | 3 | 14 | 25 |
| " | 1848 | 5 | 1 | 7 | 43 | 1 | 7 | 25 | 5 | 1 | 10 | 28 |
| " | 1849 | 1 | 1 | 3 | 30 | 2 | 9 | 20 | 6 | 3 | 5 | 19 |
| May..... | 1845 | 3 | 1 | 5 | 41 | 1 | 16 | 29 | 4 | 1 | 9 | 28 |
| " | 1846 | 2 | 1 | 4 | 25 | 0 | 7 | 16 | 1 | 0 | 6 | 18 |
| " | 1847 | 2 | 0 | 2 | 30 | 0 | 14 | 22 | 3 | 1 | 5 | 21 |
| " | 1848 | 0 | 0 | 0 | 19 | 0 | 7 | 13 | 1 | 2 | 8 | 8 |
| " | 1849 | 0 | 0 | 0 | 31 | 0 | 7 | 19 | 4 | 2 | 5 | 20 |
| June..... | 1845 | 0 | 0 | 0 | 17 | 0 | 5 | 11 | 0 | 1 | 6 | 10 |
| " | 1846 | 1 | 0 | 1 | 28 | 0 | 8 | 18 | 2 | 1 | 3 | 22 |
| " | 1847 | 0 | 0 | 0 | 34 | 0 | 12 | 23 | 5 | 1 | 5 | 23 |
| " | 1848 | 2 | 0 | 2 | 21 | 0 | 9 | 15 | 1 | 1 | 4 | 15 |
| " | 1849 | 2 | 1 | 4 | 24 | 0 | 4 | 14 | 3 | 0 | 4 | 17 |
| July..... ..... | 1845 | 1 | 1 | 3 | 25 | 0 | 9 | 17 | 3 | 3 | 3 | 16 |
| " | 1846 | 2 | 0 | 2 | 37 | 0 | 10 | 23 | 3 | 4 | 7 | 23 |
| " | 1847 | 5 | 0 | 5 | 39 | 1 | 14 | 27 | 1 | 5 | 5 | 29 |
| " | 1848 | 1 | 0 | 1 | 25 | 1 | 8 | 17 | 0 | 3 | 6 | 17 |
| " | 1849 | 1 | 0 | 1 | 33 | 0 | 1 | 17 | 3 | 2 | 6 | 22 |
| August..... | 1845 | 1 | 1 | 3 | 48 | 1 | 9 | 29 | 9 | 4 | 9 | 28 |
| " | 1846 | 3 | 1 | 5 | 35 | 1 | 4 | 20 | 1 | 2 | 11 | 22 |
| " | 1847 | 0 | 0 | 0 | 31 | 0 | 13 | 22 | 5 | 1 | 8 | 17 |
| " | 1848 | 4 | 1 | 6 | 54 | 1 | 13 | 34 | 5 | 2 | 12 | 36 |
| " | 1849 | 3 | 0 | 3 | 31 | 1 | 6 | 19 | 4 | 2 | 6 | 20 |
| September.... | 1845 | 1 | 1 | 3 | 35 | 0 | 11 | 23 | 2 | 4 | 7 | 22 |
| " | 1846 | 1 | 1 | 3 | 37 | 1 | 14 | 26 | 1 | 2 | 8 | 27 |
| " | 1847 | 3 | 0 | 3 | 82 | 0 | 18 | 50 | 3 | 4 | 23 | 52 |
| " | 1848 | 0 | 0 | 0 | 52 | 0 | 18 | 35 | 3 | 3 | 15 | 31 |
| " | 1849 | 3 | 1 | 5 | 32 | 0 | 6 | 19 | 3 | 4 | 6 | 19 |
| October..... | 1845 | 0 | 0 | 0 | 57 | 0 | 13 | 35 | 6 | 1 | 10 | 40 |
| " | 1846 | 8 | 1 | 10 | 71 | 3 | 19 | 46 | 2 | 6 | 13 | 53 |
| " | 1847 | 4 | 2 | 8 | 61 | 0 | 10 | 35 | 4 | 6 | 11 | 40 |
| " | 1848 | 5 | 0 | 5 | 69 | 1 | 12 | 41 | 10 | 4 | 13 | 43 |
| " | 1849 | 3 | 1 | 5 | 74 | 1 | 17 | 46 | 6 | 8 | 21 | 40 |

| Months. | | Collisions of Steamers and Sailing Vessels. | Collisions of Steamers | Total Steamers in Collision. | Total identified Vessels in Collision. | Steamers not identified in Collision. | Sailing vessels not identified in Collision. | Total Collisions extracted. | Damaged. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Sunk, run down Abandoned. | Seriously. | Considerably. | Slightly. |
| November .... | 1845 | 9 | 1 | 11 | 71 | 2 | 21 | 47 | 5 | 1 | 22 | 45 |
| " | 1846 | 9 | 1 | 11 | 63 | 4 | 21 | 43 | 6 | 3 | 8 | 50 |
| " | 1847 | 4 | 0 | 4 | 60 | 1 | 15 | 38 | 3 | 3 | 15 | 40 |
| " | 1848 | 2 | 0 | 2 | 66 | 0 | 22 | 44 | 7 | 7 | 17 | 37 |
| " | 1849 | 3 | 0 | 3 | 56 | 1 | 17 | 37 | 5 | 5 | 15 | 32 |
| December..... | 1845 | 1 | 2 | 5 | 81 | 0 | 27 | 54 | 6 | 3 | 8 | 54 |
| " | 1846 | 4 | 0 | 4 | 58 | 0 | 18 | 38 | 9 | 2 | 18 | 30 |
| " | 1847 | 1 | 1 | 3 | 86 | 1 | 29 | 58 | 8 | 4 | 19 | 56 |
| " | 1848 | 5 | 0 | 5 | 78 | 1 | 11 | 45 | 11 | 3 | 18 | 47 |
| " | 1849 | 7 | 1 | 9 | 79 | 2 | 15 | 48 | 11 | 7 | 11 | 52 |

## Total for Five Years.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| January ..... | 21 | 3 | 27 | 358 | 2 | 83 | 230 | 40 | 21 | 82 | 271 |
| February ..... | 9 | 0 | 9 | 274 | 1 | 75 | 175 | 23 | 20 | 67 | 165 |
| March..... | 18 | 2 | 22 | 278 | 4 | 62 | 172 | 20 | 16 | 72 | 175 |
| April ..... | 16 | 3 | 22 | 210 | 8 | 50 | 133 | 27 | 14 | 49 | 131 |
| May..... | 7 | 2 | 11 | 146 | 1 | 51 | 99 | 13 | 6 | 33 | 95 |
| June ..... | 5 | 1 | 7 | 124 | 0 | 38 | 81 | 11 | 4 | 22 | 87 |
| July | 10 | 1 | 12 | 159 | 2 | 42 | 101 | 10 | 17 | 27 | 107 |
| August | 11 | 3 | 17 | 199 | 4 | 45 | 124 | 24 | 11 | 46 | 123 |
| September | 8 | 3 | 14 | 238 | 1 | 67 | 153 | 12 | 17 | 59 | 151 |
| October | 20 | 4 | 28 | 332 | 5 | 71 | 203 | 28 | 25 | 68 | 216 |
| November | 27 | 2 | 31 | 216 | 8 | 96 | 209 | 26 | 19 | 77 | 204 |
| December | 18 | 4 | 26 | 3N2 | 4 | 100 | 243 | 45 | 19 | 84 | 239 |
| | 170 | 28 | 326 | 3016 | 40 | 780 | 1913 | 279 | 189 | 686 | 1910 |

| Years. | Steamers in Collision. | | | | Steamers and Sing vessels in collision. | | | | Sing. vessels (identified) in col. with Steamers. | | | | Sailing vessels in collision identified | | | | Sailing vessels in col. not identified | | | | Unidentified sing. Vessels sunk. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sunk, &c. | Seriously. | Considerably. | Slightly. | Sunk, &c. | Seriously. | Considerably. | Slightly. | Sunk, &c. | Seriously. | Considerably. | Slightly. | Sunk, &c. | Seriously. | Considerably. | Slightly. | Sunk, &c. | Seriously. | Considerably. | Slightly. | |
| 1845 | 2 | 3 | 1 | 8 | ... | ... | 1 | 24 | 3 | 2 | 11 | 9 | 32 | 17 | 65 | 256 | 15 | 12 | 55 | 83 | 4 |
| 1846 | ... | 1 | ... | 9 | 2 | ... | 2 | 36 | 5 | 4 | 10 | 21 | 36 | 17 | 62 | 216 | 4 | 8 | 41 | 89 | 1 |
| 1847 | ... | 1 | 4 | 9 | ... | ... | 3 | 36 | 5 | 5 | 19 | 9 | 29 | 24 | 78 | 278 | 11 | 12 | 66 | 110 | 0 |
| 1848 | ... | ... | 4 | 2 | 3 | 2 | 1 | 32 | 6 | 5 | 8 | 18 | 41 | 26 | 73 | 259 | 9 | 6 | 66 | 70 | 2 |
| 1849 | 2 | 1 | 2 | 7 | ... | 1 | ... | 27 | 5 | 7 | 8 | 8 | 41 | 21 | 70 | 247 | 20 | 14 | 36 | 47 | 1 |
| | 4 | 6 | 11 | 35 | 5 | 3 | 7 | 155 | 24 | 23 | 56 | 65 | 179 | 105 | 348 | 1256 | 59 | 52 | 264 | 399 | 8 |

| Recapitulation of Damage. | Damaged. | | | | |
|---|---|---|---|---|---|
| | Total. | Sunk, run down abandoned, &c. | Seriously. | Considerably. | Slightly |
| Steamers in contact with Steamers ..... | 56 | 4 | 6 | 11 | 35 |
| Steamers in contact with Sailing Vessels | 170 | 5 | 3 | 7 | 155 |
| Sailing vessels (identified) in contact with Steamers..... | 168 | 24 | 23 | 56 | 65 |
| Sailing vessels in contact with Sailing vessels (identified) ..... | 1888 | 179 | 105 | 348 | 1256 |
| Sailing vessels in contact with Sailing vessels (not identified) ..... | 774 | 59 | 52 | 264 | 399 |
| Unidentified Sailing Vessels sunk ..... | 8 | 8 | | | |
| | 3064 | 279 | 189 | 686 | 1910 |

## On Galvanized Iron Boats.—*By Mr. McGregor Laird.*

*London*, 59, *Fenchurch Street*,
*May 20th*, 1850.

Sir.—As the wood cut of the 70 foot galley, built for the use of H.M. consul at Fernando Po, was too late for the last number of the *Nautical*, I shall feel obliged if you will insert it in your next, and permit me at the same time to offer a few remarks upon the construction of vessels of galvanized iron.

Iron shipbuilding is not yet 20 years old, and has to all practical purposes, superseded wood in that most costly specimen of ship-building, the steam boat. It may be assumed that no private person or company exposed to competition, would in these days venture to build a wooden steamer

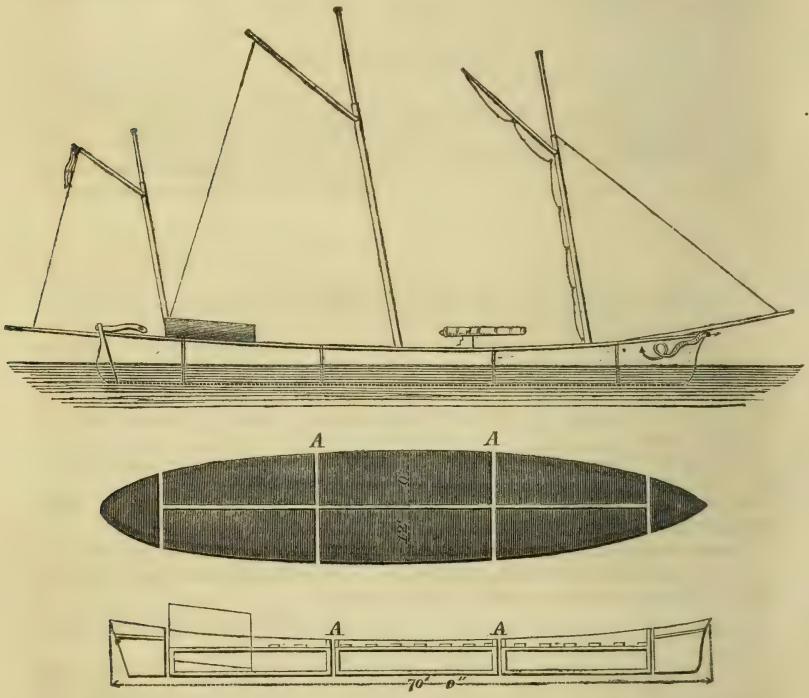
Iron boat building, by which is meant the construction of ships' boats of metal, has on the contrary failed, from two causes, the rapid oxidation of the thin sheet iron of which the boat must of necessity be constructed, and the weight of the ribs or frames required to support the plates.

The use of galvanized tinned iron obviates the first objection and makes the boat incorrodible, and corrugating the metal does away with the necessity of inside ribs or frames, and enables metallic boats to be constructed lighter, stronger, and more durable than those of wood.

The principle on which galvanized iron becomes incorrodible, is from the action of the atmosphere forming a thin film of sub-oxide of zinc on the surface, which does not dissolve in water, and is so hard as to remain sound when subjected to considerable mechanical friction. The coating of zinc prevents any oxidation of the iron below it, while it is itself protected from decay by the sub-oxide thus formed upon its surface. A

boat built of this material may therefore be considered indestructible by any atmospheric influence.

The galley described in the wood cut is the first large boat built of galvanized iron in this country, but they have been and are extensively used in the United States; and in Lieut. Lynch's interesting account of the survey of the Dead Sea, your readers will find a description of a galvanized tinned iron boat, which he took with him for that purpose,




Cross Section at A.

and which proved what metallic boats will do in ascending rapid streams like the Jordan, where their wooden boat was knocked to pieces after the ascent of one or two rapids,—while after completing their survey, the metallic boats were again carted across the country to the Mediterranean.

That the use of galvanized tinned iron will rapidly extend in boat building, now that it is introduced, there can be little doubt, particularly for vessels bound to hot climates, where the alterations of the tempera-

ture speedily destroy the best constructed and best protected wooden boats; but I look forward to its being used largely in the construction of ships, for though it is not a complete protection against fouling, it is a partial one, and at the same time a perfect preservative of the metal.

I remain, &c.,
MACGREGOR LAIRD.

---

## NAUTICAL NOTICES.

*Singapore, Jan. 24th*, 1850.

DANGERS IN THE STRAIT OF MALACCA—A first class buoy, painted black and white, having been placed on the 21st of January, 1850, on what is usually called the Two and a half fathom bank, at the western entrance to the Straits of Malacca, in two fathoms at low water spring tides, the following bearings were taken by azimuth compass from it:—

| | |
|---|---|
| Parcilar Hill . . . . . | East half South |
| False Parcilar Hill . . . . . | North 50° East |
| Trees on the low land of Callam Island just visible on the horizon, the eye being elevated 12 feet above the water. . . . . | North 85° East |

There is a small patch north-east from the buoy, about twenty fathoms distant, with nine feet at low water spring tides.

About a mile to the eastward of the buoy on the tail of the bank, there are overfalls of three and four fathoms, with five, six, and seven fathoms between them.

To the westward of the buoy, nothing under five fathoms within a quarter of a mile.

To the north and southward of the buoy, there are ten and twelve fathoms within a quarter of a mile.

Vessels from the eastward or westward, keeping Parcilar Hill east a quarter south will just clear to the southward of the bank, and east three quarters south, will lead a vessel clear to the northward.

S. CONGALTON, *Com. H. C. S.*

---

NEW SHOAL IN MOZAMBIQUE CHANNEL.—Mr. White, of the barque *Pilot*, at Salem, furnishes the following extract from his journal:—"Saturday, Jan. 5th, at 7½ A.M., passed over the end of a shoal, with not more than 3 fathoms on it, could see the bottom very distinctly, and at the same time saw several patches to windward, which looked much shoaler. Should think the whole extent of the shoal to be 1½ to 2 miles. It bears from Bassas de India N.W.b.W. ¾ W., by compass, distant 35 miles, lies in lat. 21° 10′ S, long. 38° 57′ 30″ E., and should consider it dangerous."—*Shipping Gazette.*

The positions given by Mr. White do not agree, but they will serve as a CAUTION for seamen.

---

## APPRENTICES.

SIR.—When a boy is bound apprentice to a tradesmen on shore, that tradesman is obliged by law, to teach the boy the whole "art and mystery" of his trade. A boy apprenticed to the master of a vessel ought also to be taught

the whole "art and mystery of the trade" or profession. But is it so? Are masters in the habit of instructing their apprentices in that most necessary part of their trade, "Navigation?" Are they in the habit of teaching them the "art and mystery of lunars, chronometers, amplitudes, azimuth, &c." I think not; and in many, very many cases for obvious reasons; the masters do not know it themselves. Now, as the bill brought in by Mr. Labouchere will, eventually, be the means of obliging persons to pass certain examinations before taking upon themselves the responsibility of conducting a ship, or of even being an officer of one, I do think it would be but fair, that the same bill should provide for their instruction, while serving their apprenticeship, in the science, to enable them to pass the examination and be at any time after, able to take a superior station in their profession, without, as is now the case, being obliged to go on shore and cram for their examination, at the expense to themselves of some pounds which they can ill afford. Such is the case at present, and only because the person they have been appointed to, cannot, or will not, instruct them in the whole of the art and mystery of their trade.

I am, &c., W. M.

*To the Editor N.M.*

[A reference to Lees on *The Laws of Shipping*, shews that our correspondent's complaint is too well grounded.—Ed.]

---

## Removing Buoys from Rocks.

Mr. Editor.—An accident has just happened to H.M. steam-vessel *Cuckoo*, Capt. Dumaresq, which might have involved the entire loss of that vessel, as it certainly has done her very serious injury, arising from an unaccountable neglect some where among authorities which regulate these matters. The *Cuckoo* going into St. Helier's at Jersey on the morning of the 15th inst., struck on a bed of rocks called the Huitres, and received so much damage that she had just time to reach the pier before she sunk. Happily the troops she had on board were safely landed and no lives were lost. The rock on which she struck is usually beaconed, and is so marked in the Admiralty chart; but for some reason or other the beacon has been removed. Now, Mr. Editor, we do really look to your very important work for information on these matters, and it is right that your readers should be informed how such things are allowed to be without any notice being given of them. You will, therefore, oblige me very much by informing me when this beacon was removed and for what reason; also why no notice was given of it, and whether or not it is ever to be replaced.

I am, &c.,

Mercator.

[The complaint of our correspondent "Mercator" and the question which he has put are both very proper, and we regret very much to say that the want of some absolute scrutinizing authority to regulate these matters and prevent such occurrences as this, is but too evident. We have always considered that the Hydrographical office of the Admiralty should be the general recipient and source of all such information, as affects Hydrography at home or abroad, because the hydrographer is expected to supply the most authentic information of that kind for the service of H.M. ships, the most numerous

as well as most important navy of the whole world. And yet how is it? buoys are altered in position, they are laid down, changed in character, nay even lights are extinguished, as was the case recently with a light on the west coast of Ireland, all of which the hydrographer knows nothing, or if he should hear of it, he is indebted to courtesy for the information! And yet he is expected (and very properly, from his very important station) to know all this. There is a law that requires the British Museum and certain other establishments to be furnished with every new work that is published, and why we should like to know, should not every one be required by law furnish the hydrographer with a notice of changes of this nature, for the evident reason that it is necessary for the safety of H.M. ships. Had this been done the commander of the *Cuckoo* would have been informed of the danger, and the accident would have been avoided.—Ed.]

---

## Sailing Orders of Captain Austin.

By the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c.

1. Having appointed you to the command of the expedition, which it is the intention of Her Majesty's Government to dispatch on a further search for Her Majesty's ships *Erebus* and *Terror*, under the command of Sir John Franklin, you are hereby required and directed to take the vessels *Resolute*, *Assistance*, *Intrepid*, and *Pioneer*, under your command, and so soon as they are in all respects ready, to put to sea, and to make the best of your way to Davis' Straits, for the express purpose of prosecuting a most vigorous search for the missing ships.

2. We have directed you to be furnished with a copy of our orders, which were given to Sir John Franklin, and which will afford you full information how he was directed to proceed. We have likewise ordered you to have a copy of our instructions to Captain Sir James Ross, and to these we have to direct your especial attention.

3. The various papers which have been laid before the Houses of Parliament have also been sent for your information; by reference to them you will be made aware that we have taken the opinions of the most able and experienced persons, connected with Polar navigation, relative to the missing expedition; you will observe that many valuable conjectures have been made: and it has been suggested that Sir John Franklin may have effected his passage to Melville Island, and been detained there with his ship. It has again been suggested as possible, that his ship may have been damaged in the ice, in the neighbouring sea, and that with his crews, he may have abandoned them, and made his escape to that island. To these, as well as the other possibilities, you will not fail to give every proper weight.

4. It therefore appears to us to be a main object of the expedition for you to use every exertion to reach Melville Island, detaching a portion of your ships to search the shores of Wellington Channel and the coast about Cape Walker, to which point Sir John Franklin, was ordered to proceed. We trust that a diligent examination of these several places will afford you some certain trace or record of the missing expedition, which will enable you to form an opinion of the best course to adopt for their rescue. As your course of action must clearly depend on such information, we consider it unnecessary to give you any definite or specific instruction, and inexpedient

to bind your knowledge and experience of the navigation of the Polar Sea; and, placing just reliance on your energetic character and zeal, we leave you entirely unfettered to do what may seem to you best for attaining the great object of the expedition entrusted to your charge, feeling assured that you, as well as all those under you, will use your utmost exertions to afford relief to our unfortunate countrymen, and to justify the reliance we have placed in you.

5. The officers whom we have consulted have expressed an opinion that no vessel should be allowed to prosecute the search alone, and it is for this reason that to your own and to Captain Ommanney's ship an auxiliary screw vessel has been attached; we therefore direct your attention to this important consideration.

6. Your ships have been fully equipped and provisioned for a period of three years, to meet any emergency which may arise from falling in with Sir John Franklin's party. In addition to these supplies there are stores and provisions, &c., left by Sir James Ross at Port Leopold, and a further store was sent out in the *North Star*, in the summer of last year. These will be available for you in case of necessity, but you are not to consider them as a part of your own stock, but as a reserve for the aid of any of Sir John Franklin's party who may reach that spot, or as a depot on which any party may fall back upon, should they unfortunately be separated from their ships.

7. In the prosecution of your search you will use your utmost efforts during *this* summer, taking care not to lose any opportunity which may be open to you of getting to the westward, and of securing your ships in some safe harbour before the winter sets in, from whence you will dispatch such overland parties as the means placed at your disposal will permit. On the return of the open season of 1851 you will again renew your search; but it is our intention and directions that you shall return to England in the autumn of that year, unless some trace should be found of the missing expedition, which may lead you to believe that a delay may contribute to their rescue, and which may justify a deviation from our orders.

8. You are aware that this is not the only expedition fitted out or being dispatched with the same object; one such, under the command of Mr. Penny, of Aberdeen, has already sailed for Davis' Straits, provisioned as your own for a period of three years. We furnish you with a copy of the instructions under which he is acting, and we desire that you will render him any aid and assistance in your power, as well as to any other expedition, either from this country, the United States of America, or from any other nation, so far as you may be able to do so without risk of crippling the resources of the vessels under your command.

9. You will take the utmost care in leaving memorials of your track in the usual manner, and in every prominent place, and enjoin the same precaution upon all the ships and land parties detached from you or them.

10. You will keep your second in command well informed of the Instructions under which you are acting, consulting with him on all points, and stating your own views as to the best means of carrying them out, so that no information may be wanting on his part, if accident to yourself should cause him to succeed to the command.

11. As soon as you reach the Whale Fish Islands, to which rendezvous the *Emma Eugenia* transport has already been dispatched; and that you have distributed the supplies taken on board that vessel, for the use of the expedition, you will send her to England, and you will also give orders to the Master of the *North Star*, should you fall in with that vessel, to return home.

12. The several vessels thus placed under your command have been fitted out under your own immediate superintendence, and with every attention to the wants and requirements of the great enterprize you have volunteered to undertake. The officers in command of the vessels composing it, and who are animated with the same ardour as yourself, have been selected by you with our full concurrence, as to their fitness for this particular service; all that could be effected by the generous sympathies of your Queen and your country has been done; and it only remains for us to conclude our instructions, with an earnest prayer that success may attend your exertions, and that a good Providence may guide your councils, and be your constant defence.

Given under our hands this 2nd of May, 1850.

F. T. Baring,
M. F. F. Berkeley.

To Horatio T. Austin, Esq., C.B., Captain of Her Majesty's ship *Resolute*, in charge of an expedition to the Arctic Seas.

By command of their Lordships,

J. Parker.

---

The Behring Straits Expedition.—*Commander Pullen's Report.*

*Fort Simpson, Mackenzie River, Oct. 4th*, 1849.

Sir.—I beg to acquaint you, for their Lordships information, of my arrival at this place yesterday morning, with the greater part of my party, having left the remainder with an officer, Mr. Hooper, acting mate, at one of the Hudson's Bay ports, on the river Peel. I left the *Plover* off Wainwright Inlet; on the night of the 25th of July, 1849, in pursuance of orders from Commander Moore; a copy of which I herewith send, together with those from Captain Kellett, of H.M.S. *Herald*. Our voyage has been successful, with the exception and main object of not finding any traces of our missing and unfortunate countrymen. Extracts from my journal of proceedings I can only at this time send, as an extra express will be sent directly the boats arrive from the Great Slave Lake, momentarily expected, and where the party pass the winter; and it will only be by great exertion that (the express) will save the open water. A track-chart and complete journal I hope to lay before their Lordships on my arrival in England, leaving this for York Factory about the middle of June 1850, and expect to arrive there the latter end of August.

On the night of the 25th of July, 1849, off Wainwright's Inlet, H.M. brig *Plover*, Her Majesty's ship *Herald*, and schooner yacht *Nancy Dawson* in company, I shoved off from the first-named vessel (received three hearty cheers; the same from the *Herald* on passing her, which we, about to prosecute the search for the gallant Sir John Franklin and his party, heartily returned,) with four boats—viz, the *Herald's* decked boat, called the *Owen*, the *Plover* pinnace, and two whale boats, with a crew of five-and-twenty, including officers and myself; seventy days' provisions for each man, and twenty cases of pemmican.

On Sunday 29th, early in the morning, passed Cape Smyth, and soon after came up to the main pack of ice, close into the shore, and stretching westward as far as the eye could reach. I now thought our voyaging was over, and we should have to return to our ship. The wind was N.E.: hauled to the westward and ran along the pack in hopes of finding a passage there, as at one time I fancied I saw an opening, when I saw the *Nancy Dawson*

coming towards us. She is commanded and owned by a Mr. Shedden, formerly a mate in our service, and from whom I received very valuable assistance and great kindness. He seemed determined to keep by us, as long and as far as possible. At noon I got the latitude on the ice 71° 15′ 58″ N., and on looking well round I saw a narrow lane of open water close in shore, leading to the northward, but apparently blocked up at its entrance. I made for the shore again, when we were visited by natives, who gave us to understand there was a narrow passage close in shore, leading up the coast. Here our interpreter was at fault; he could not talk to these people or make himself understood a bit better than we could, gaining all our information by signs, succeeding to admiration, the Esquimaux being, apparently, so used to that mode of receiving and imparting information. As we got in shore, we saw the channel in the bottom and nearly centre of a deep bay formed by the pack and main land, the western horn being about two miles off shore. There was heavy ice driving through it, together with a current of two knots, and a wind dead on end (N.N.E., light.) It was impossible to get on, so I anchored in 4½ fathoms, between two bergs at the mouth of the bay, to wait for an opportunity of getting through; and as the ice was driving fast down on us, weighed and made fast to the western berg, under its lee.

The next morning the yacht took a berth alongside of us, mooring with two ice anchors. During the night of the 30th, as well as the whole of the day, it blew hard from the N.N.E., and on the morning of the 31st not quite so much wind, but still heavy ice driving down the channel, our friendly berg parted and set all adrift, surrounded by heavy floes and drift ice. The boats were soon again fast under the ice of the in-shore or eastern berg, where the *Dawson* again took up her berth, working up, threading her way through the drift ice, and against a strong current, in gallant style. Towards evening the wind began to moderate, and at 6h. 30m. P.M., sent the two whale boats to pull up close in shore, while the large ones turned up with a moderate breeze until nine, when it had hauled so much to the westward, that we stood along shore, and took our small craft in tow. As we advanced we saw many natives, who tried every inducement to get us to land, dancing, shouting, and following us till we came to the southern part of the low narrow spit terminating to the northward in Point Barrow, and which point we were in hopes of reaching by 12 o'clock. We were disappointed, for at 11h P.M., were stopped by an immense floe effectually blocking up the channel, so we hauled close in to the shore, under a projecting point of ice lying on the beach and secured, when we were visited by many natives, quite friendly, and apparently delighted to see us, offering their furs for trifling pieces of tobacco, and helping us in various ways. It was light all night, but rather cold, the thermometer standing at 33°.

The next morning the ice had driven off shore a little, and allowed us to get on, partly under sail, and partly tracking, in which the natives readily took a share, when at 11h. A.M., we were effectually stopped, the ice from the shore to the main pack quite set fast, and no channel as far as the eye could reach. Hauled close in under the lee of a projecting point from the beach, and made fast. The wind was moderate from the N.E., off-shore, so it might clear a passage for us; but no, it was too heavy, although much of it was shore ice, from its colour. Our latitude at noon was 71° 20′ 30″ N. In the afternoon hauled close up to the ice, and tried to force a passage, but it was useless; many parts of it aground in five fathoms water, but went away fast. In the evening I landed amongst the natives, and was most graciously received by rubbing noses; they dancing and shouting to each other with stentorian lungs, and showing us round their camps with evident satisfaction.

At one in particular, the chief apparently, assembled all his people, and entertained us for an hour with dancing, accompanied with singing, and music on a sort of tamborine—a thin skin (intestine of the seal) well stretched on a circular frame of wood, and beat against a stick. I gave them beads, tobacco, and snuff, winding up with a scramble, at which they were as much pleased as our men, for it was rather a ridiculous sight so many (women and all) wrapped up in furs, rolling about on the ground together. We parted good friends, many following us to the boats, where I dressed the hand of one man who had received a wound in it while seal hunting. I am sure it never had such a washing before as I gave it.

At 11h. this night the wind hauled to the south-east; shortly after the ice began to break, when I heard the booming of a heavy gun, which I returned with a small 3-pounder we had in the bows of the *Owen*, and pulled down the coast in hopes of seeing the *Plover* It was foggy at the time, but on its breaking away a little I discovered the *Nancy Dawson* most perseveringly following us up. I went on board and tried to pursuade Mr. Shedden to return south, as his vessel was quite unfit to encounter the ice. But no; he was determined to follow us as far as he possibly could with a chance of getting back. At 12h. the ice was driving northward, and a large floe coming up from the south—the schooner then at anchor—it drove her close in shore, but not on the ground, as it was checked by projecting points from the beach. As she was not in any danger, I left her, returning to my boats with a current setting to the northward, at the rate of one and a half knots an hour; when, at 5h. 30m. A.M., seeing our obstruction in full move, we made sail after it, threading our way through the loose pieces towards Point Barrow, and at 7h. rounded it, and came to in two fathoms water, 100 feet off shore, with unmingled feeling of delight, and silent thanks of gratitude to that merciful Providence who had conducted us thus far in safety, and with a prayer for a continuation of His help on our voyage. I now had to consider and determine on my future proceedings. It did not take me long; for with a fine open sea to the eastward, I concluded there could be little difficulty in reaching the Mackenzie, and resolved to make a bold push. I landed among a large concourse of natives, recognizing many of our former friends. Got observations for time, dip, and variation: a large pole up, with directions on it for finding buried information of our movements, and that there were two ships in the Arctic Seas—one to winter either at Kotzebue or Port Clarence. Purchased a biadar; gave the natives a few trinkets and tobacco, with which they were highly delighted; when, at 11 o'clock that night, we were all ready for a move, and the yacht, a mile south of the point, driving up with the ice. Shortly after Mr. Shedden came on board, having walked up the coast, landing two miles below to see us—to see the last of us. His boat came soon after, when we got under weigh at half-past 11 of the night of the 2nd of August, parting with mutual good wishes for success. I hope and trust he got clear away to the southward without any difficulty.

We made sail to the eastward with a light northerly air and easterly set, threading our way through loose ice until two o'clock, on the afternoon of the 3rd, when we anchored in five feet water, 200 feet from the shores of a low sandy spit, in latitude 71° 15′ N., and long. 155° 37′ W. It was now blowing hard from the south, and kept us here until the night of the 4th; when the weather moderating, and our three boats loaded, having given them names—the first whaler *Louisa*; second, *Logan*; and biadar, *Supply*—I gave Mr. Martin directions to return to Refuge Inlet with the large boats, and there wait as long as he considered it prudent; and on no account run the risk of being caught by the ice, or north of Icy Cape after the first week of September, but on the first indication of it, to get away to the southward

and rejoin the ship, finding her at either of the places mentioned in Commander Moore's orders. Refuge Inlet we examined coming up the coast, but found it not available for large boats. My crews consisted of eleven men, (three of them petty officers,) John Abernethy, Acting Quarter-master Ice; Mr. Hooper, Acting Mate, and myself,—14 in number.

In my orders I was directed to take Mr. Martin; but as Mr. Hooper was the Magnetic Observer I made the change; particularly as Commander Moore had left it entirely to myself on speaking to him about it. The interpreter also, I did not bring on, as up to Point Barrow I found him useless; he did not understand the natives, in fact, none of the northern tribes; and told us so after starting. Again, when I was first going to leave this night, I found him very ill; I waited for an hour, and no improvement. I resolved not delaying any longer, and lose the light wind which was now blowing from the south, so at 11h. 45m P.M., shoved off, with three hearty cheers from those we left behind us; and who would most gladly have come on to share our danger and our difficulty. Mr. Martin, in particular, was much cut up, greatly disappointed at not taking the large boats further on; but I did not like to run the risk. I considered now we had fully ninety days' provisions, besides twenty casks of pemmican. Our little craft were certainly very deep; but we had light hearts, and every hope of success in reaching our destination. We kept close in shore, with wind from S.S.W., a moderate breeze.

At 11·30 A.M., passed Point Christie, crossed Dease Inlet, and at 2·50 P.M., landed on a low point in Fatigue Bay for dinner. As the wind was blowing fresh, although favourable, I remained here till 5 P.M.; for our heavily laden boats were in no condition to stand heavy sea; but by that time it was a little more moderate, so we shoved off, passed Boat Extreme, Cape Governor Simpson, and were getting well across Smith's Bay with an increasing breeze, now from the westward, and sea getting up that we tried to keep closer in shore; but the water so shoal, were obliged to haul off again. When at 7, the *Logan*, with *Supply* in tow, made a signal of distress, shortened sail and pulled towards them, and found the latter shipping a great deal of water, from being so deep. Took some of the stores out of her, and I, with the *Louisa*, took her in tow. This was almost out of the frying-pan into the fire, as the extra weight in the whalers rendered their situation ticklish; but there was no help for it, and we all kept close together, when at 9 P.M., we were obliged to land on a dead lee shore, with the sea breaching right over us in the eastern part of Smith's Bay. Hauled the boats up, and unloaded. Found all our bread wet, with the exception of 120lbs. in a cask, and about 100lbs. of flour: the preserved potatoes saturated, with all our small stock of clothing in a like condition. We camped in a low boggy situation, the best we could find, and made the most of it.

The next morning, the 6th, still blowing and raining; built a sort of oven, and commenced drying our bread, which kept us at work all day, and the watch all night, and then only imperfectly done, for it took up more time than I was willing to spare, particularly as in the evening the wind was falling and the sea going down. Since leaving the large boats we have not seen much ice, and none to the north; as far as the eye can reach is a clear, open sea. Crossing Smith's Bay, we could see the pack from four to five miles distant.

On the morning of the 7th the weather was almost calm; we launched our boats and loaded them; sorry to find that a great quantity of our bread is still wet, which we were likely to lose, as well as six tins of preserved potatoes. At eleven we shoved off, the *Logan* taking the lead, the *Louisa*, (my boat,) with *Supply* in tow; pulled up the eastern shores of the bay close to; rounded Point Drew, and landed a few miles east of it; got our dinners and

the dip, and at three moved on again, winding our way among drift ice, with wind light from the eastward. At 8h. 30m. we landed for the night by the deer pound and salt creek of Simpson, with wind from south-east.

The morning of the 8th was fine, with a light haze, and moderate wind from south-east; at 5h. 30m. we shoved off, and on the morning of the 9th at five minutes after 8h. A.M., landed on the south east part of Cape Halket, and got the dip. It was now perfectly calm, and cloudy sky, with pack from two to three miles, off shore, when at a quarter to ten, we shoved off under oars and steered a course for Point Berens, the eastern Horn of Harrrison's Bay. I found the current setting eastward, a great help to us, when, at 11h. A.M. we entered the ice (right in our course), the sea being covered with large floes as far as the eye could reach, and some aground in five fathoms water. At 4h. 3m. P.M., a heavy squall of rain, with wind from south-west, to which we made sail, and hauled a litttle to the southward to close the land, the sky looking very threatening; quantities of drift-wood passing driving to the northward as well as the ice,.

On the morning of the 10th the breeze began to increase, and sea get up, and our poor little vessels to labour very much, shipping water and keeping our bailers constantly going. At 2h. A.M. our soundings had been gradually decreasing from three fathoms and a half to one fathom, and we were all looking anxiously for land, to get on shore as soon as possible. The *Logan* had the *Supply* in tow, when at 2h. 30m. A.M., she parted her tow-rope; secured her again, and at 3h. sighted land, very low, which I take to be about the mouth of the Colville, from the shallow water and large quantities of drift wood. At 3h. 15m. A.M., the water had shoaled to two feet and before we could haul off, were aground; poled into deep water and stood to the northward. At 3h. 30m., a strong breeze and heavy sea, with land barely in sight, I found it absolutely necessary to make for it, a dead lee shore as it was, and effect a landing at all risk, (the wind being about west), for at one time I was doubtful whether the *Supply*, would reach it, the *Louisa* and *Logan* being very little better. At 3h. 40m. A.M the *Supply* pitched under, and with the weight of water broke off her head rails and tore the skin adrift, which was soon laced up again. It was now necessary to lighten, if we were to get on shore; so I gave the word, and threw over-board some of our lading, confining ourselves to that damaged in the last gale. Our boats felt the relief directly, and at 6h. 30m. A.M. we reached the shore, landing pretty well (about two miles south of Point Berens), with the exception of all hands getting an addition to our already wet garments. Cleared, and hauled the boats up, and on overhauling found we had thrown over board two hundred and fifty pounds of bread, and seven cases of preserved potatoes, and a ten gallon cask of water, making it more imperative on us to be very careful of what we have got. I now consider the worst part of our voyage over, no more deep bays to cross, but able to keep the land close on board.

On the morning of the 11th we were all ready to proceed with dry clothes and with cheerful hearts, and at 7h. 30m. A.M. shoved off, pulled up for Point Berens, and at ten minutes to 9h. A.M. landed as I intended, burying some pemmican, which would be a relief to our boats, and on a conspicuous point likely to be visited by those we are in search of, if successful in getting down to these shores and proceeding to the westward. We met here a great many natives, all friendly and glad to see us, to whom I made presents, and made our *cache* without their observing it; the direction post we could not hide, but let it very deep into the soil. On shoving off we missed our shovel, and one of the men observed a native bury something in the sand and stand on it; I walked up to him, fully expecting it was the missing article, and, on trying to find out what it was, he resisted, when Mr. Hooper pushed his hand completely through the sand, got hold of the shovel

and hauled it from under him. The fellow was disappointed and followed us to the boat, and while shoving off made another attempt to get it, with no better success. We ran to the eastward, with wind from W.N.W., between Jones's Isle and the main, when at 2h. 15m. P.M. landed for dinner, and were soon joined by a baidar, or omiak, full of men and one woman, among whom we recognised our friend who had attempted to steal the shovel; we did not allow them to come beyond a certain boundary line, when at 2h. 30m. p.m. we started again with wind from N.W., still following the shore as close as the shoal water would permit, and when abreast of the western part of Return Reef crossed over to it, and ran along its southern shores; while crossing over observed the omiak following us, but keeping a respectable distance. At 8h. 30m. P.M., landed on the Return Reef, and were soon visited by a party of natives, who were quite friendly. I gave them a few beads and small pieces of tobacco; but one of them apparently a chief, was desirous of getting powder. He had a musket of English manufacture, Barnet the name on it; also a powder-horn, with about a quarter of a pound of powder in it, but no shot. At 11h. 30m. P.M. shoved off again, and saw approaching us four omiaks full of men and a few women, and observed two large camps, one on the point of the main abreast of us, the other and larger, on a point a little to the eastward of it. We were now pulling to the eastward, with every appearance of a freshening breeze from N.E., and five large omiaks keeping close up with us—in one I counted twenty-three, two out of the number women, and none of the others less than sixteen. We kept close order, not allowing them to approach too near.

On passing the large camp they tried hard to induce us to land, without success, so they left us, as I thought, for good, when, at 12h. 15m. A.M. of the 12th, we were under the necessity of pulling in for the shore, and landing on a very shallow beach, about half a mile westward of Point Beechy, making but little progress against a strong north-easterly wind, and sea getting up. At 3h. A.M. the natives came up to us again, walking along the shore from their camp about two miles off, having certainly watched us all the time. They now mustered in large numbers; there could not be less than eighty, among whom I recognised our friend of Point Berens, who tried to steal our shovel, and the chief with his musket carried by his wife, and several other women present beside. I felt no apprehension, but at the same time had all ready to embark at a moment's notice, drawing a line for their boundary, and saw them all seated at their proper side, when the man with the musket crossed over and made many demands for powder, which I would not give him, and motioned him off; when, on seeing me resolute in refusing, he gave the gun to his wife, walked a short distance to their camp, and returned almost immediately with his bow and arrows, the whole of the men doing the same. I gave the word to get into the boats, but do it leisurely, and show them we were ready; Mr. Hooper, two Marines and self kept a sharp look out musket in hand, when I ordered the *Logan* and *Supply* to shove off, and get into deep water. In the mean time this chief tried hard to get on the bank and to windward of us, but I would not allow him: when the remainder of us made a move to the *Louisa*, they made a rush for the bank, and, I expect, hoped to catch us at disadvantage, but we were all in the boat, Mr. Hooper and I with our double barrels at the present, while the men were shoving off, and pulling out to the *Logan*. One fellow had the arrow on the string and bow at full stretch, when, fortunately, I covered him, and he dropped under the bank immediately. We lost our anchors, otherwise everything was all right.

As the wind was too strong to proceed eastward, I ran back to that part of the Return Reef we had previously landed on, and as the *Supply* was nearly half full of water, I took out of her three cases of pemmican, and

buried it in the sand; but before I could get masts up, the natives were after us again, and landed half a mile on the reef to the eastward of us, just as we were shoving off. I now made an attempt to pull up for the pack, distant about two miles from the northern part of the reef, with quantities of drift ice close down on the northern shore—passed through an opening in the reef, and all strung together to keep close, with two large omiaks full of men, about forty, ranging up alongside occasionally, but at a respectable distance, apparently watching for an opportunity for attacks, which I really think they would have tried, if for one moment they had seen our eyes off them. We pulled for an hour without making any advance against a heavy sea and strong breeze, and tiring the men to no purpose. I bore up again for the reef, and landed on its weather shore. Hauled our boats up immediately, and built a stockade of the drift timber, quantities of which were near at hand, and got all ready for resisting any attack they might make, having landed half a mile to the eastward of us, at the same time a large party doing so to the westward, mustering in all about 100 men. Three men tried to approach us, but I would not allow it, keeping an armed watch just on the rise of the reef, which they seeing, did not trouble us any more that day, but watched us. At ten A.M. they left us, returning to the main land.

It was impossible for us to move with the present weather, blowing hard from N.E. with a heavy sea, and the ice driving fast down on the reef, and immense masses assuming all sorts of appearances; and on one occasion this afternoon, the men came running to me, and shouting, "A sail, Sir, there is the schooner:" I looked, and it certainly did look like a vessel, but on examining with the glass, saw directly it was a large berg in the pack. The night before I was deceived in nearly the same way. Passing between the main and Jones's Island under sail, directly we opened the passage between it and the western part of Return Reef, and got sight of the ice, I made certain there was a boat coming down towards us: and so sure was I, that we down sail and pulled directly to windward for a long way, but on a near approach saw that it was only ice. In the evening Mr. Hooper and I visited the spot where we had buried the pemmican, and found it untouched.

The morning of the 13th was cold and rainy, with wind fresh from north, and very hazy weather, which I determined to take advantage of, and get away from our troublesome friends. At 2 A.M. we shoved off, leaving a large fire inside our stockade, and pulled directly for the pack; and at 4 A.M. made fast to a large berg close to it, and commenced preparing our breakfast, (boiling our kettle with spirits of wine,) which we got, shivering with the cold and almost dripping wet with sea water and damp fog. At 8h. 15m. we shoved off from our cold berth, and pulled away to the eastward, following close along the pack, and passing between large bergs with north-east wind, and current setting westward; when at 10 A.M., to our inexpressible joy, the wind hauled to westward, made sail, and at half-past twelve landed on the eastern part of Return Reef, about two miles from its extreme point. Large fires soon dried our wet clothes and got us a warm dinner, fitting us again for anything; when, as we were getting our things into the boats, saw two omiaks coming out from under the land, paddle up and land to the westward of us, just as we were shoving off, quite bent on doing us mischief if they could; for every man, forty in number, had his bow and arrows, and directly, as they thought, within distance, fired, two arrows one dropping astern and one ahead. Mr. Hooper and I fired over them, which they returned; we then fired amongst them, but I am happy to say without effect, as just then both parties were out of range, and we saw our balls skip along towards them, nevertheless, it made them drop flat on the ground, and they were evidently frightened. We now made sail, and resumed our course with a

fine breeze from the W.N.W., and at half-past twelve at night landed on a low shingly point, two miles to the eastward of Foggy Island, tired and weary, after the two days of excitement and continued watching, wet through the greatest part of the time, with thermometer from 35° to 40°, considering the latter quite warm. Since leaving the Return Reef we have not seen any ice.

The next morning until 8 o'clock passed the Lion and Reliance Reefs; and on the morning of the 16th landed on the eastern part of Flaxman's Island, with the pack about a mile from its seaward shores, but the drift close down. We passed between the island and the main, in a free channel, and 1h. 15m. P.M. landed on the low sandy beach from the high eastern part of the island. The ice apparently close down, but on getting on this high part, a passage along shore was distinctly seen, as well as in Camden Bay. At 2h. 15m. P.M., we were again moving, threading our way through the ice; occasionally tracking, where the shoal water allowed us to land. The wind light from the eastward; the main pack from two to three miles off shore, with a great quantity of sailing ice about. At 10, we made fast for the night to a small grounded berg, not able to get on shore, water so shoal, and slept in our boats. Night was now throwing her sable mantle over us, which we all seemed to welcome as an old acquaintance, having for nearly the last two months daylight throughout the twenty-four hours.

The next morning at 4 A.M., we found the ice had driven off shore: perfectly calm and smooth water; cast off, pulling eastward, landing at 5 to get our breakfast, on a small spit, where there was an immense tree amongst the drift timber, perfectly straight, 80 feet in length, and 10 feet in circumference at its base. From 6h. 30m. A.M. up to noon, the ice was very thick, when we got into fine open water, and made good progress, with a light W.S.W. wind, which sprung up just as we got clear, it appearing to have been shut out before by the ice. The main pack was distant about four miles off shore, with very little drift ice visible. At 1 passed a very large camp, but no natives seen, and at 9h. 15m. P.M. landed on the S.W. part of Barter Island, and camped for the night.

The next morning, 18th, started with wind from north-east and at 11h. 30m. A.M., landed on the northern part of a small island eastward of Manning Point, and got a meridian altitude and the dip. Here I buried cases of pemmican, erected a post, with directions on it for finding it; and at 8 P.M. we again stopped for the night on a small spit off Point Martin, having made but little progress, the wind against us all day, and strong.

The next day we were detained with a north-east gale and thick fog, thermometer during the day from 35 to 37 degrees. Fifteen minutes after midnight of the 19th the fog began to clear, and wind shifted to the S.W. Our boats which had been lying on the south side of the spit, formerly the lee, now the weather, were shifted round to the northern side, loaded, and at 1h. 15m. A.M. of the 20th, we shoved off under low sail sometimes driving, as it was dark, and fog not cleared entirely; when at 2h. broad daylight, made all sail.

On the evening of the 21st, at 7h. 30m. P.M. landed for the night on a low shingly beach from one of the islands between Herschel Island and the main, and forming for our boats a good lee, the wind then blowing strong from the N.W. with a heavy sea. The ice here is heavier than any we have yet seen, lying close up to the N.W. shores of Herschel Island, fast aground, with large floes and sailing ice going fast to the eastward. We were now drawing close to the mouth of the Mackenzie, which I fully hoped to reach in two days at the furthest; but misfortunes still awaited us to the last.

At half-past one on the morning of the 22nd, I was awoke with the disas-

trous news of all the boats being swamped, and on going to them found it was really so, occasioned by a sudden shift of wind to S.W. and breaking their quarter-fasts. We cleared them immediately, and found our instruments the greatest sufferers, for the bread we had was already saturated, and could receive but little or no additional injury. We turned to with a will, carefully wiped and cleaned all; but I fear the dip circle is injured more than we can remedy, together with my own sextant. However, at 8 A.M. we were all ready again, and although we have had such frequent occurrences, no one seemed discouraged, but, like sailors, danger and difficulties over, nothing more is thought of it, and no despairing. Anxious to get on, fearing the ice might block us in where we were now lying, as it was driving fast eastward with the strong north-wester, although a heavy sea on. At 8h. 30m. A.M. shoved off under close reefs; when at eleven, we were obliged to seek shelter under the lee of the narrow tongue from the western point of Herschel Island, which forms with the opposite point on the island a deep bay. Here we got our dinners, after which, finding both wind and sea gone down, I pushed on, going fast eastward with the sailing ice, and all under sail; the *Supply* doing better alone, but keeping between the *Louisa* and *Logan*. On getting clear of Hersehel Island, we began to feel the heavy rolling sea, with no ice in sight, and were again driven to the shore, landing with a good drenching, under the lee of a gravel spit, south-east of Calton Point. On these spots we never find water, so are obliged to carry it with us. Immense quantities of wood is always to be had, and our greatest enjoyment and most comfortable time is sitting or standing before immense fires made of this drift. To-day we took advantage of it, as we could not start, got all things out of the boats, made one long range of fires, spread our bread, now quite a paste, and drenched garments before it. The spit was of no great size, you might walk round it in five minutes, and just enough elevated in the centre to have our tents and fires in a dry berth; but to us it was "any port in a storm." I got the dip here, and towards evening the wind was lulling; and sea going down, with sky clearing and stars shewing, so we may hope for fine weather to-morrow, thermometer during the day 35° to 38°,

On the morning of the 23rd it was fine, with a moderately westerly breeze, and at ten minutes after 3 A.M., we shoved off and ran away eastward, making good progress. At 3h. 30m. P.M, rounded Kay's Point with the wind light, and by 4 quite calm; and we did not reach the mouth of the river until the evening of the 26th, passing between Cape Reef and the main, where we saw the last of the Esquimaux.

On the evening of the 27th we entered the river, having been employed all day observing and exploring our locality, for I was doubtful of my position, but perfectly satisfied of my being on a branch of the Mackenzie. We did not go far up, for Whale Island is yet to be visited; and I determined to leave the greater part of the party and Mr. Hooper here, on the left bank two miles from its mouth, and proceeded the next day with one boat and seven men, including myself and Ice Master, with a week's provisions; most thankful to that blest Providence who has conducted us thus far in safety.

On the morning of the 28th, I left the camp with wind strong from S.W., ran across Shoal Water Bay, and along the north shores of Tent Island, and steered to the N.E., and in the evening got up to Ellice Island, when we were stopped by strong N.W. winds, and every appearance of a change for the worse, for it was now very cold. During the night it rained hard and blew heavy, clearing up a little in the morning, but wind still the same, dead against us, so I made up my mind to return, until seven o'clock with no appearance of change for the better, we shoved off on our way back,

and had not made much progress when it came on heavy sleet, followed by hail, and finally snow; piercingly cold, continued all day with but slight intermission; and I can safely say, it has been the most miserable day I have had since the commencement of our voyage. At one time it was so thick and blowing strong, that we could only just see the bank we were close to, under which we stopped for such shelter as it afforded, stamping our feet, and beating our hands to get them at all warm, for there was no walking, the dwarf willow too thick to allow of it. At six we reached the camp, and found they were not in a much better condition.

Throughout the night we had snow, but the morning of the 30th was fine, although very cold, the thermometer 32° with a light westerly wind. At 7 a.m. we commenced the ascent of the river by tracking, which was not a very easy job: the top of the bank to the waters edge in many places thickly covered with dwarf willow.

On the morning of the 5th September, we reached the first of the Hudson's Bay Posts, and one of which my orders speak of—namely, on the Peel River; but our getting here was quite accidental, having mistaken the Rat River, not in my chart, for the mouth of the Peel, and turning into it instead of keeping on. Again, not seeing mountains on the left, as is in my chart, I was not sure, although very doubtful.

The night of 4th an Indian came to us (one of the Louchoux) and told us the white men were not far off, so I determined on going on for the next day at least, until I had got sufficient observations for what I wanted. It was about 10 a.m. when we reached the Post, and were kindly welcomed by Mr. Hardisty, the gentleman in charge, who gave me such good intelligence of being able to keep a part of our party, that I resolved on leaving five of them and Mr. Hooper here, together with one boat, and the greatest part of the provision, with orders to join me in the spring of the year, when the Company's people come on with the returns of the year for shipment for England.

I intend pushing on with the rest of the party (seven men) to Point Separation, and the next post cleared the boats, and had the *Logan* and *Supply* loaded with twenty days provision for eight men, and seven cases of pemmican; and on the afternoon of the 6th, taking one of the Company's men as pilot, we shoved off; got to Point Separation the next morning, where I found a note in the "cache" from Sir J. Richardson, saying we were to go to Fort Simpson, and winter on the Great Slave Lake. I left three small cases of pemmican nearly equal in weight to his one, a note with an account of our proceedings, and shoved off, crossed to the right bank, and commenced tracking.

On the morning of the 11th, I found it very necessary to get rid of one of our boats, namely the *Supply*; sorry was I to do it, for I had hoped to have carried her on to England as a specimen of the Naval architecture of the Western Esquimaux, and for the good service she rendered us. But there was no help for it, she retarded our progress terribly, and was a great weight to the men in tracking, who were now beginning to feel the work and getting foot-sore and weary, although the strongest of the party. Those I left at Peel River, at least three of them, were in a very weak condition, which was partly my reason, together with Mr. Hardisty's assurance of their being plenty of provision, for leaving them; at all events, they have at least fifty days' provision of what we had in the boats, besides four small cases of pemmican. After breaking up the *Supply*, I had the skin cut into three pieces, (considering it would make good mocassins for the men), and stowed it in the *Logan*, together with other stores, which made us very deep, particularly when nine men got into her; but she was lighter on the line, and we were getting on better, when a light breeze sprung up from the south, to which we made sail; and on its increasing, took all hands in, and flew along at a rapid rate, but dare not keep

any distance off shore, so much sea was there raised by the strong wind against the downward current. As our flour and bread were all out, I opened a case of pemmican as a substitute.

On the noon of the 14th, we met the Company's boats on their way to the Peel, with their winter supply; and at 6·30 P.M., we arrived at Fort Good Hope. I remained here until Monday morning, getting from Mr. McBeath the gentleman in charge, a supply of mocassins for the men, for the heavy boots were not at all fit for such work as we have to perform; the walrus hide (skin of *Supply*), made up, also a case of pemmican and quantity of dried meat, leaving our boat the *Logan*, as she is quite unfit for the work, also all the stores we did not require, bringing off nothing but the two marines' muskets, and taking one of the Company's boats Mr. Mc. Beath had at the station; two men, a Canadian and half-breed, the former steersman, and two Indians to assist in tracking; and good service they rendered us, for we should not have been here yet if they had not been with us, not knowing the river, and particularly the rapids, where we should have been at fault.

On Monday the 24th, the thermometer at 6 was down to 26°, with a light easterly air; when at 7·10 A.M., we moved on with the tracking line; and on Sunday the 23rd, at noon, arrived at Fort Norman, got a supply of pemmican, a bag of flour, thirty lbs. of dried goat's flesh, from Mr. Mc'Kenzie, the gentleman in charge; discharged our two Indians, who were as sorry to leave us as we to part with them, and reached this place on Wednesday, the 3rd Oct., at 11 o'clock in the forenoon, most hospitably welcomed by Dr. Rae, Mr. Bell, and Mr. O'Brien; the former the Arctic voyager, and in charge of the post.

In conclusion, I beg to assure their Lordships that every endeavour has been made to gain intelligence of our missing countrymen; and if I have at all deviated from my orders, it was with a firm conviction that I was doing all for the best. I have had little or no trouble with the natives in making them understand what we wanted; even those with whom we had the skirmish were questioned on our first meeting, and all that we have met, they have looked at us gravely and with astonishment. Every corner, every part of the coast, has been thoroughly searched, with the exception of the depths of Harrison's Bay, and there I should not think it likely they would go; again, the natives at Point Berens would have known it, had any one been there. The northern shores of Herschel Island I did not visit, as at the time we were there it was blowing hard from N.W., W., S.W.; and our time was getting very short. All marks on the coast and many poles have I seen and examined, taking us often very much out of our course, and giving us a wet walk; in fact, I fear to say there is but little hope of any news of our gallant countrymen, at least the way we have come; and none unless Sir James Ross gets any, or they return to England.

I have seen no difficulty in a proper ship getting on by the same route as we have come, and can hardly think there is not one deep channel into the Mackenzie, where such a rapid current is met with. Our boats I found very small for the voyage; if we could have kept the sea at times, we should have performed it in half the time. In the river work the men have been greatly at fault, particularly when we came to the tracking over large stones, our only way of getting on; and we arrived here very weary, the gentlemen and parties at the different posts wondering how we got on, and expressing astonishment at our small and deeply laden craft; nevertheless they did their work well, and I should have much liked to have got them home.

I have been obliged to draw largely on the Company's stores, for clothes for my men; for such a ragged set as we were on arriving, I have not for a long

time seen. We all started with but little hope of getting thus far, and it was out of the question our taking much, with so much of other stores; and I know there was not a blanket among the fourteen. But thank God, He has indeed been with us, and it is only by His help and assistance we are here. We are now waiting for the boats from the Great Slave Lake, where the men winter, and in June next, all start for York Factory in the Company's boats.

On my arrival in England I hope to lay before their Lordships a track chart; my journal is full, with all notes and observations I may have obtained on this most interesting expedition. I cannot help recommending Mr. Hooper, acting mate, and my second, to their Lordships' most favourable consideration. He has been active and zealous in the performance of his duty; and all the dip observations along the coast up to the Peel were obtained by him.

I hope their Lordships will not think me presuming in taking the liberty of enclosing with this a letter to my wife, which I beg you will be good enough to have posted.

I have, &c.
W. J. S. PULLEN,
*Lieutenant of Her Majesty's brig Plover,*
*Commanding the Boat Expedition.*

*To the Secretary of the Admiralty, London.*

The Gun mentioned above belonged to a man named Spence, who was one of Sir George Back's boat's crew, and who in the hurry of embarkation from "Barter Island," (a few degrees to the eastward of Return Reef) left it, together with some ammunition on the beach. The circumstance is mentioned in Franklin's narrative, 1826, p. 148, some twenty-three years ago, and is thus invested with considerable interest as shewing how a party may be traced.—Ed.

---

### Dr. Rae's Report.

It appears that he returned to Fort Confidence, having been quite unsuccessful in his object, and with the loss of Albert, the Esquimaux interpreter, who was drowned at the Bloody Fall.

Dr. Rae says in the course of his narrative—"We were so often and so long detained by interruptions of this kind, that it was the 11th of July before we arrived at the Bloody Fall, having been fourteen days in doing the work of one. Notwithstanding the inefficiency of our steersman, James Hope (one of Dease and Simpson's men), we ran all the rapids, including the Escape, without shipping much water, and with all the cargo in the boat.

"On the 14th we entered the sea, and found a narrow, and very narrow channel along the shore of Richardson's Bay, until we came to its north side, where the ice lay against the rocks. Here the latitude, 67° 51′ 19″N., was observed, and the azimuths of the sun—the one on the meridian, and the other when on the prime vertical, gave variations 57° 4′ and 56° 25′ E.

"Whilst encamped at this place we were visited by seven Esquimaux, one of whom I at once recognised as the active intelligent man who had afforded Sir John Richardson's party such efficient assistance last season, when crossing the river at the head of Back's Inlet. On inquiry I learnt that they had been well supplied with provisions in the early part of winter and in spring, but that in the interval they had nearly starved owing to the scarcity of seals, having had to subsist for some time on the skins of the larger species of these animals which they had been preserving for making boots. In the winter they had communicated, directly or indirectly, with the natives of Wollaston Land, none of whom had ever seen white men, large boats, or ships.

"At 3 P.M. on the 30th we arrived at Cape Krusenstern; and when opposite

its high cliffs, a strong breeze sprung up from N.N.E., which drove the ice so forcibly against the rocks, that we were obliged to unload and haul the boat up on a drift of snow to save it from being squeezed.

"We were now at the most convenient, though not the nearest point for making the traverse to Wollaston Land, passing close to Douglas Island; and there was no necessity for our proceeding further along shore, even had we been able to do so, which at present was impossible, the high rocks presenting an insurmountable barrier on the one hand, and the ice, by its roughness, equally impassable on the other. We pitched our tents on the tops of the cliffs, in the ascent of which the before-mentioned snow bank served as a ladder, and waited for the first favourable change in the ice. A few days afterwards, Albert, (the Esquimaux interpreter) and one of the men, when some distance inland, looking for deer, overtook five Esquimaux travelling to the interior, with loads of salmon which they had speared in a rivulet, that falls into Pasley Cove. From these, the interpreter learnt that the sea ice had commenced breaking up only one day before our arrival; and that they had been in company with the natives of Wollaston Land during the winter, none of whom had ever seen European large ships or boats.

"A number of observations were obtained, which placed our encampment in latitude 68° 24′ 35″ N.; the longitude being very nearly the same as that assigned to it by Sir John Richardson and Mr. Kendall. The mean variation of the compass, from eight sets of azimuths, on different days and at different hours was 59° 8′ 8″ E., the extremes being 57° 42′ and 61° 25′. On the 19th August there was more open water to seaward than we had yet observed, caused by a moderate southerly breeze that had been blowing for the last two days.

"After waiting some hours for a favourable opportunity of forcing our way through a close packed stream of ice that was grinding along the rocks as it drove to the northward, we at last pushed off, and, after more than once narrowly escaping being squeezed, we reached comparatively open water, where we had room to use our oars. We had pulled more than seven miles, and were still three from Douglas Island, when we came to a stream of ice, so closely packed and rough, that we could neither pass over nor through it. A thick fog had come on, and the ebb tide was carrying us fast to the south-east. Under these circumstances, I thought it advisable to return towards the main shore; on which we landed, early on the morning of the 20th, a short distance to the south of the place from whence we had started.

"On the evening of the 22nd, I ascended a hill near the shore, from which a fine view was obtained. As far as I could see with the telescope in the direction of Wollaston Land, nothing but the white ice, forced up into heaps, was visible; whilst to the east and south-east there was a large space of open water, between which and the shore a stream of ice, some miles in breadth, was driving towards Cape Hearne and its vicinity.

"As the fine weather had now evidently broken up, and as there was every appearance of an early winter, I thought it would be useless waste of time to wait any longer in hopes of being able to cross to Wollaston Land. I, therefore, gave orders for our return towards the Coppermine, at which I did not expect to arrive in less than a week, as the ice wore as unfavourable an aspect as it did last year.

"*Fort Simpson, Sept. 26th*, 1849.

"P.S.—I arrived here this afternoon, and intend sending off the expedition men to Big Island, Slave Lake, on the 28th, with an ample supply of nets and twine, so as to procure sufficient fish for their winter provisions, without being any additional expense to Government.

---

### Edwards' Patent Preserved Potato.

By the Admiralty Circular, No. 60, dated 7th February, 1850, we are glad to find that this invaluable Sea Store which has proved so serviceable in Her Majesty's Navy, is now to be issued as a ration for the Troops on board all ships.

## Examination of Masters of Merchant Ships.

A List of the Masters in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, up to the 28th of March.

Those marked thus *m* served last as mates.

| Names. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Duncan, J..... | 2nd | 1829 | Susan & Ann, 159 tons.... | 195867 | Dundee | March 1st |
| Tully, W..... | 2nd | 1811 | Ann & Isabell, 256 tons.... | 92827 | S. Shields | — 2nd |
| Ridley, W..... | 1st | 1826 | Ursula, 487 tons..... | 261634 | Liverpool | — — |
| Hand, J. K.... | 2nd | 1821 | City of Poonah, 900 tons *m* | 12616 | London | — 4th |
| McLeod, J..... | 2nd | 1800 | Etheldred, 423 tons ..... | ..... | —— | — — |
| Ayres, C..... | 2nd | 1826 | Coldstream, 900 tons....*m* | 32076 | —— | — — |
| Anderson, G. J. | 2nd | 1825 | Minerva, 285 tons .....*m* | 391694 | —— | — — |
| Seymour, G. F.. | 2nd | 1824 | Duke of Portland, 533 tns*m* | 18972 | —— | — — |
| Terry, G. D.... | 3rd | 1805 | Calypso, 156 tons.....*m* | 348487 | —— | — — |
| Ducat, P. S.... | 2nd | 1823 | Choice, 150 tons.....*m* | 12140 | Dundee | — — |
| Parke, F. T.... | 2nd | 1821 | Courier, 389 tons.....*m* | 337608 | Liverpoo l | — 5th |
| Clare, J. C.... | 1st | 1820 | Paradise, 521 tons..... | 26809 | London | — — |
| Thompson, L.... | 2nd | 1828 | Riga, 189 tons.....*m* | 39533 | Dundee | — — |
| Mill, P. D..... | 2nd | 1822 | Barossa, 260 tons..... | 185285 | —— | — 6th |
| Hill, A..... | 2nd | 1828 | Samuel, 327 tons..... | 68007 | London | — 7th |
| Detchon, F..... | 2nd | 1823 | Premium, 239 tons..... | 181764 | Newcastle | — — |
| Gibson, W..... | 2nd | 1821 | Thomas & Robert, 248tns*m* | 80127 | —— | — — |
| Watson, J. H... | 2nd | 1828 | John, 261 tons .....*m* | 163599 | —— | — — |
| Culbertson, J... | 1st | 1808 | Retrieve, 234 to,.. ..... | ..... | Leith | — — |
| Auld, D..... | 2nd | 1827 | Forth, 149 tons.....*m* | 15742 | —— | — — |
| Duncan, R..... | 2nd | 1826 | Perthshire, 126 tons..... | 132678 | Dundee | — — |
| Hindson, T..... | 2nd | 1819 | Ruby, 241 tons.....*m* | 52197 | Hull | — — |
| McKechnie, A.. | 2nd | 1818 | Brooksby, 513 tons. ....*m* | 203892 | Glasgow | — 9th |
| Carmichael, W. | 2nd | 1824 | Fanny, 197 tons.....*m* | 96760 | —— | — — |
| Sadler, J..... | 2nd | 1824 | Herald, 277 tons . .....*m* | 16504 | Plymouth | — — |
| Marsh, E..... | 1st | 1822 | Java, 1175 tons.....*m* | 476593 | London | — 11th |
| Pluck, D..... | 1st | 1818 | Eweretta, 356 tons.....*m* | 457922 | —— | — — |
| Davies, M. D.... | 2nd | 1822 | Milford, 323 tons..... | 18010 | —— | — — |
| Wilton, T..... | 2nd | 1823 | Stebonheath, 1013 tons..*m* | 29989 | —— | — — |
| Prynn, N. C.... | 3rd | 1815 | William Glen Anderson389 | 118697 | —— | — — |
| Knott, E..... | 2nd | 1821 | Trent, 1235 tons ..... | 348577 | —— | — 12th |
| Scott, D..... | 2nd | 1819 | Helen Stewart, 86 tons .... | 57455 | Dundee | — — |
| Murray, T. C... | 2nd | 1804 | William & Jane, 210 tons.. | 183501 | S. Shields | — — |
| Nicholson, T.... | 2nd | 1814 | Anglicania, 248 tons..... | 164470 | —— | — — |
| Anderson, J.E.W | 2nd | 1825 | Sophia, 586 tons.....*m* | 328272 | Liverpool | — 13th |
| Ackland, W. J.. | 2nd | 1827 | Messenger, 330 tons ....*m* | 145736 | —— | — — |
| Vincent, T..... | 2nd | 1825 | Culloden, 726 tons.....*m* | 328428 | London | — 14th |
| Rowell, H..... | 3rd | 1821 | Prince Albert, 301 tons..*m* | 18048 | —— | — — |
| Allan, J..... | 3rd | 1814 | Lord W. Bentinck. 443 tons | ..... | —— | — — |
| Gardner, E..... | 3rd | 1823 | Digby, 787 tons.....*m* | 20462 | —— | — — |
| Reader, J. W... | 3rd | 1818 | Rainbow, 265 tons .....*m* | 2077 | —— | — — |
| Foster, G. A.... | 2nd | 1819 | Hope, 206 tons..... | 11783 | S. Shields | — — |
| Melhuish, J.... | 1st | 1825 | President, 319 tons..... | ..... | Liverpool | — — |
| Clabon, J. ..... | 2nd | 1817 | Sophia, 537 tons ..... | 344910 | London | — 18th |
| Howes, V. T.... | 2nd | 1822 | Scindian, 649 tons, .....*m* | 436272 | —— | — — |
| Barlow, G..... | 2nd | 1800 | Asiatic, 503 tons ..... | ..... | —— | — — |
| Hindson, J..... | 2nd | 1821 | Humber, 484 tons.....*m* | 35519 | Hull | — — |
| Edie, W..... | 2nd | 1814 | Columbus, 454 tons ..... | ..... | Glasgow | — 20th |
| Willis, J..... | 1st | 1800 | India, 726 tons..... | ..... | Liverpool | — — |
| Trivett, J. F.... | 1st | 1811 | Iris, 230 tons ..... | ..... | London | — 21st |
| Burnard, W.... | 2nd | 1811 | Wellington, 256 tons ..... | ..... | —— | — — |
| Foster, W. H.... | 2nd | 1820 | Charlotte, 350 tons.....*m* | ..... | —— | — — |
| Harvey, J..... | 2nd | 1813 | Emily, 480 tons ..... | ..... | —— | — — |
| Stranack, H.... | 3rd | 1826 | Attwood, 280 tons.....*m* | 4626 | —— | — — |
| Geves, W..... | 1st | 1817 | Albatross, 1026 tons ..... | 65390 | Liverpool | — — |
| M'Clelland, W.. | 2nd | 1820 | Fairy Queen, 319 tons..*m* | 8694 | —— | — — |
| Morphew, W. P. | 1st | 1812 | Duke of York, 350 tons.... | ..... | —— | — 22nd |
| James, E..... | 1st | 1816 | Lord Stanley, 769 tons. .. | .... . | —— | — — |
| Fowler, R..... | 2nd | 1820 | Glencairn, 320 tons ..... | ..... | Leith | — — |
| Scott, F..... | 2nd | 1819 | Royal Archer, 310 tons. .. | ..... | —— | — — |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Menzies, R..... | 2nd | 1824 | Theodosia, 299 tons ....*m* | 162847 | Leith | Mar | 22nd |
| Lowry, H..... | 2nd | 1813 | Elizabeth Mary Ann, 121tn | ..... | London | — | 25th |
| Byron, J..... | 2nd | 1808 | Cecilia, 277 tons ..... | ..... | —— | — | — |
| Panrucker, C, F. | 2nd | 1824 | Odessa, 286 tons .....*m* | 26335 | —— | — | — |
| Naylor, H. I.... | 3rd | 1804 | Maria Somes, 785 tons.... | ..... | —— | — | — |
| Mills, A. O..... | 3rd | 1826 | Susannah 514 tons ..... *m* | 23943 | —— | — | — |
| Mortleman, R.. | 3rd | 1826 | Seine, 300 tons .....*m* | 137649 | —— | — | — |
| Rolfe, W..... | 3rd | 1826 | Quiver, 123 tons .....*m* | 24524 | —— | — | — |
| Campbell, A.... | 1st | 1810 | Palmyra, 465 tons..... | ..... | Glasgow | — | 26th |
| Carroll, R..... | 2nd | 1826 | Old England, 502 tons ..*m* | 155304 | Liverpool | — | — |
| Griffith, P..... | 2nd | 1799 | Star, 195 tons ..... | ..... | —— | — | — |
| Whitehead, H.. | 2nd | 1813 | Toms, 215 tons..... | 2457 | S. Shields | — | 28th |
| Divine, C..... | 2nd | 1823 | Carlisle, 222 tons.....*m* | 4534 | —— | — | — |
| Pascoe. T..... | 1st | 1819 | China, 432 tons ..... | 20857 | Liverpool | — | — |
| Steward, J. D.. | 2nd | 1818 | Madrid, 600 tons .....*m* | 27917 | London | — | — |
| Rea, W..... | 2nd | 1816 | Ann Dashwood, 873 tons.. | 258587 | —— | — | — |
| Tomlinson C. .. | 2nd | 1817 | Boyne, 630 tons .....*m* | 34650 | —— | — | — |
| Swainson, G N, | 3rd | 1822 | William Jolliffe, 196 tons*m* | 2752 | —— | — | — |
| Hough, G .... | 3rd | 1827 | London Merchant, 306 tns*m* | 248 | —— | — | — |

## New Books.

An Arctic Voyage to Baffin Bay and Lancaster Sound *in search of Friends with Sir John Franklin, by Robert Anstruther Goodsir.*—Van Voorst, London.

We have only space at present to preserve the following extract from this interesting little work, but shall return to it in another number. It relates the sad loss of several whalers in the year 1830

"On the 19th June a fresh gale sprang up from the S.S.W., and drove in upon them masses of ice, by which they were soon beset, in latitude 75° 10′ N., long. 60° 30′ W., about forty miles to the southward of Cape York. They ranged themselves under the shelter of a large and rugged floe, having water barely sufficient to float them. Here they formed a majestic line behind each other, standing stem to stern so close as to afford a continued line along the whole of their decks, being at the same time so pressed against the ice that in some places a boat-hook could with difficulty be inserted in the interval.

" On the evening of the 24th, the sky darkened, the gale increased, the floes began to overlap each other and press upon the ships in an alarming manner. The sailors then attempted to saw the ice into a sort of dock, where they hoped to be relieved from the severe pressure; but soon a huge floe was driven upon them with a violence completely irresistable. The " Eliza Swan" received the first shock, and was saved only by the floe raising her completely up. It caused her indeed, to strike with such force against the bow of the "St. Andrew" that her mizen-mast was nearly carried off, but it then passed from under her, after damaging severely her stern and keel. It next struck the St. Andrew midship, breaking about twenty of her timbers and staving a number of her casks, but it then fortunately moved along her side and went off by the stern. Now, however, pursuing its career, it reached successively the Baffin, the Achilles, the Ville de Dieppe, and the Rattler, and dashed againt them with such tremendous fury that these four noble vessels, completely equipped and fortified, and which had braved for years the tempests of the Polar deep, were in a quarter of an hour converted into shattered fragments. The scene was awful; the grinding noise of the ice tearing open their sides, the masts breaking off and falling in every direction, amid the cries of 200 sailors, leaping upon the frozen surface, with only such portions of their wardrobe, as they could snatch in a single instant. The Rattler is said to have become the most complete wreck almost ever known. She was literally turned inside out, and her stem and stern carried to the distance of a gunshot from each other. The Achilles had her

sides nearly pressed together, her stern thrust out, her decks and beams broken into innumerable pieces. The Ville de Dieppe a very beautiful vessel, though partly filled with water, stood upright for a fortnight, and the greater part of her provisions and stores were preserved, as were also some of those of the Baffin, two of whose boats were squeezed to pieces. All the other boats were dragged out upon the ice, and were claimed by the sailors as their only home. Not far from the same spot the Progress of Hull, was crushed to atoms by an iceberg.

"On the 2nd of June, and on the 18th of the same month, the Œnhope, also of that port, became a total wreck. About the same time, and within a short distance of the above, eleven other vessels were destroyed under circumstances precisely similar. Yet it is a remarkable and gratifying fact, that in the whole of these sudden and dreadful disasters there should not have occurred the loss of a single life. The very element, indeed, which destroyed the vessels was in so far propitious as it afforded to the crews a secure, though uncomfortable retreat. By leaping out upon the ice in the moment of wreck, they all effected their escape. Still, we have heard of several instances in which the danger was close and imminent. Sometimes the seamen before they could snatch their clothes and bedding, found themselves up to their middle in water. The surgeon of the North Britain beheld the ice rushing in and meeting from opposite quarters in the cabin before he was able to make his retreat."

---

## Naval Tactics.

Mr. George Biddlecombe, Master of the Queen's Yacht, has just published a work on Naval Tactics, dedicated by permission to the Admiralty. He shews in his preface that, his long services afloat, the capacity in which he has served, and the careful examination of the best authors on the subject on which he has written, entitles his work to the favourable consideration of the Service.

The diagrams illustrating the different *orders of sailing* are skilfully executed, and the lucid and seamanlike directions for performing the manœuvres, will gain the approbation of all who are conversant with the subject.

Mr. Biddlecombe has increased the value of his work by adding to it a correct and very simple mode of constructing diagrams and tables of *trials of sailing*, which will enable officers to make their reports more readily.

The night signals and regulations for steamers, also annexed, have been satisfactorily proved and generally adopted by Foreign steam vessels.

---

Northern Lighthouses.—The Commissioners of Northern Lighthouses, have issued their statement of revenue and expenditure in the past year, which exhibits some satisfactory results. There has been an increase in the amount of light duties levied in the year 1849, of £3,856 1s. 3d.; and of this increase no less than £2,454 15s. 11d., has arisen at the ports in Scotland, indicating an increased activity in trade throughout this kingdom. The light duties in 1848 were contributed by 160,551 vessels in the coasting trade, giving an aggregate tonnage of 15,712,770, and by 48,770 vessels in oversea trade, giving an aggregate tonnage of 9,479,589. On the other hand, the light duties in 1849 have been contributed by 159,988 vessels in the coasting trade, giving an aggregate tonnage of 15,974,571, and by 59,815 vessels in the oversea trade, giving an aggregate tonnage of 11,169,393. A contrast of these statements, shows a decrease in the number of coasting vessels of 563, but an increase in their amount of tonnage of 261,801; also an increase in oversea vessels of 11,045, and in the amount of their tonnage of 1,689,804. The commissioners express regret that the want of funds has compelled them to curtail, to the extent of one-half, their expenditure on new works in the past year; but by an addition of £8,718 7s. to their previous debt, they have been enabled to com-

plete and exhibit three new lights, viz., Nosshead, in Caithness; Ardnamurchan, in Argyllshire; and Ship Rock of Sanda, in the Frith of Clyde. The commissioners further report, that the state of their funds (being upwards of £21,000 in debt), will preclude them from undertaking any new works during the current year, and that they must confine their outlay to the only new work in progress, that of the leading lights for Hoy Sound, in Orkney. Considering the numerous calls for additional lights on our rugged coasts and islands, this anticipated cessation of those most important works is much to be regretted.

| | |
|---|---|
| The total revenue of the board for the year 1849 was ... | £44,684 4 3 |
| And the expenditure ..... | 53,432 11 3 |
| Leaving over expended..... | £8,748 7 0 |

Of the above sum of 53,432*l.* 11*s.* 3*d.*, there has been expended in the ordinary maintenance of thirty-five lighthouses, nineteen beacons, and seventy buoys, 35,493*l.* 1*6s.* 6*d.* This sum includes all the expenses of shipping, officers' salaries, establishments in Edinburgh and Leith, expense of collecting revenue, and in short every outlay not connected with new works. The balance of the year's revenue, together with the sum super-expended, has been laid out on works in progress, amounting to 17,938*l.* 14*s.* 9*d.*—*Caledonian Mercury.*

---

New Caledonia.—The Elizabeth schooner, from New Caledonia 27th December, brings to Sydney accounts of the destruction by the natives, at the north end of the island, of the establishment formed there in July last, for beche-la-mer fishing, by Mr. Fitzgerald, of Auckland, New Zealand; and there is reason to fear that the sloop, Mary, Henry Raby, master, attached to the establishment, was either captured by the natives or lost upon a reef, as no account has been heard of her. On the approach of the Elizabeth to the station, it was perceived that the buildings were all in ruins; and when a party went on shore, it was ascertained that they had been destroyed by fire. Two 12lb. carronades were found, spiked, and half buried in the sand. Mr. Fitzgerald then went to an appointed spot to seek for information as to the cause of the abandonment of the settlement, where he found, buried under a tree, a letter enclosed in a bottle, written by his overseer, Mr. David Miller; stating that he had been attacked by about 2,000 natives and though he had killed numbers of them, they continued at him day and night; and as his ammunition was getting short, and all the surrounding hills were covered with natives, and also as two of his men were badly wounded, he thought it advisable to take to his boats and proceed to windward, to a place called Balletto. The Elizabeth then made a careful search along the coast for 120 miles, but could not find them; neither was there any appearance of the French missionary establishment at Yengin or Balade, nor of the schooner Mary Ann, belonging to it, which would probably infer that the mission, as well as Mr. Fitzgerald's twenty-three people, had all been driven off by the savages, infuriated by their losses in their recent attack, and that they had all probably left in the Mary Ann, for the Isle of Pines or Anatam, where the mission has other religious stations. Strong south east-gales prevailed, which prevented the Elizabeth from visiting the Isle of Pines, and she was obliged to run back through the eastern and western reefs on her way home.

---

The New Mail Contracts for Brazils and the West Indies.—The Lords of the Treasury have just sanctioned the contract with the Royal West India Mail Packet Company for the conveyance of the Brazilian mails, and a new mail route scheme for the West India mails. The Brazilian mail route scheme is as follows:—Steamers are to run between Southampton and

Rio de Janeiro, touching at the Cape de Verd Islands and Pernambuco. Branch mail steamers are to run between Rio de Janeiro and the River Plate. According to the terms of the new West India mail route scheme steamers are to run twice a month between Southampton and Chagres, calling at Madeira and St. Thomas. These steamers are to return by the same route. St. Thomas is to be the foreign packet station at which the inter-colonial mails are to be deposited, and from which they are to be distributed. These arrangements are to come into operation as soon as the necessary ships are complete.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory. From the 21st of April, to the 20th of May, 1850.

| Month Day | Week Day. | Barometer. In Inches and Decimals | | Thermometer In the shade. | | | | Wind. Quarter. | | Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.'M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | Su. | 29·59 | 29·70 | 50 | 53 | 42 | 54 | NW | N | 2 | 2 | bcp (2 | bc |
| 22 | M. | 29·95 | 29·94 | 47 | 49 | 40 | 50 | N | N | 3 | 4 | bc | o |
| 23 | Tu. | 29·98 | 29·98 | 46 | 50 | 39 | 51 | NW | NW | 2 | 3 | o | o |
| 24 | W. | 30·15 | 30·11 | 43 | 51 | 34 | 52 | N | NW | 4 | 3 | bc | bc |
| 25 | Th. | 30·06 | 29·97 | 52 | 54 | 37 | 55 | SE | S | 2 | 3 | bcm | bcm |
| 26 | F. | 30·09 | 30·09 | 46 | 58 | 39 | 59 | NE | NE | 4 | 5 | bc | qbc |
| 27 | S. | 30·14 | 30·12 | 47 | 49 | 41 | 51 | NE | NE | 5 | 4 | qbc | bc |
| 28 | Su | 30·23 | 30·26 | 48 | 52 | 36 | 53 | NE | NE | 4 | 4 | bc | bc |
| 29 | M. | 30·34 | 30·31 | 48 | 53 | 34 | 54 | NE | NE | 4 | 3 | bc | bc |
| 30 | Tu. | 30·23 | 30·18 | 47 | 53 | 37 | 55 | NE | NE | 4 | 4 | bc | bc |
| 1 | W. | 30·06 | 30.06 | 45 | 48 | 39 | 49 | N | N | 2 | 4 | o (2) | bc |
| 2 | Th. | 30·18 | 30 23 | 44 | 52 | 35 | 53 | NE | NE | 3 | 3 | bc | bc |
| 3 | F. | 30·26 | 30·19 | 48 | 56 | 32 | 56 | NW | W | 2 | 2 | b | o |
| 4 | S. | 29·99 | 29·86 | 54 | 53 | 42 | 56 | W | W | 3 | 3 | bc | bcp (3) |
| 5 | Su. | 29·61 | 29·57 | 50 | 52 | 40 | 54 | SW | N | 2 | 2 | bc | o |
| 6 | M. | 29·58 | 29·56 | 42 | 42 | 40 | 44 | NE | NE | 5 | 5 | qor (1) (2) | qo [3] [4] |
| 7 | Tu. | 29·48 | 29·49 | 43 | 46 | 41 | 47 | NE | NE | 4 | 3 | or (1) (2) | od [3] |
| 8 | W. | 29·37 | 29·46 | 45 | 45 | 44 | 46 | N | NW | 3 | 2 | ofgr (1) (2) | or [3] |
| 9 | Th. | 29·78 | 29·85 | 45 | 48 | 40 | 50 | N | N | 3 | 2 | bc | bc |
| 10 | F. | 29·99 | 29·99 | 48 | 57 | 35 | 58 | SW | SW | 3 | 3 | bc | o |
| 11 | S. | 29·99 | 29·99 | 55 | 60 | 45 | 61 | SW | SW | 2 | 3 | o | bc |
| 12 | Su. | 29·97 | 29·99 | 52 | 58 | 50 | 60 | W | W | 3 | 4 | or (2 | bc |
| 13 | M. | 30·15 | 30·13 | 51 | 57 | 40 | 60 | N | N | 2 | 4 | bc | bcp [4] |
| 14 | T. | 30·10 | 30·04 | 46 | 54 | 39 | 57 | NW | NW | 2 | 2 | bcm | o |
| 15 | W. | 29·90 | 29·90 | 44 | 45 | 41 | 47 | NE | NE | 4 | 5 | o | qbcprs [3 |
| 16 | Th. | 29·93 | 29·93 | 44 | 53 | 34 | 54 | N | N | 4 | 4 | bc | bc |
| 17 | F. | 29 94 | 29·92 | 52 | 58 | 42 | 60 | NW | N | 1 | 2 | bcm | o |
| 18 | S. | 29·81 | 29·78 | 55 | 59 | 46 | 60 | W | SW | 1 | 2 | bcp 2) | o |
| 19 | Su. | 29·81 | 29·79 | 55 | 64 | 45 | 65 | SE | SE | 2 | 2 | bc | bcp [4 |
| 20 | M. | 29·78 | 29·73 | 52 | 61 | 43 | 62 | NE | NE | 2 | 2 | op 1) | bc |

April, 1850.—Mean height of the barometer = 29·733 inches; mean temperature = 48·8 degrees; depth of rain fallen =2·62 inches.

## TO CORRESPONDENTS.

Capt. Biden's paper received too late for our present number. The length to which our Arctic Papers have extended in this number prevents our noticing the departure of *Capt. Austin's Expedition*, which event will however be fully recorded in our next.

Caution.—The Shambles off Portland.—We understand that the buoys on this shoal have broken adrift for some time, and that there is no intention of replacing them.

Hunt, Printer, Church Street, Edgware Road, London.

THE

# NAUTICAL MAGAZINE

AND

# Naval Chronicle.

JULY, 1850.

## The South-West Coast of the Louisiade.

*Extract of a Letter from H.M.S. Rattlesnake, Evans Bay, Cape York, Oct* 1849.

On the 10th of June we first saw the land, and at 10h. A.M. clearly made out Adele Island, the *Bramble* having parted company during the gale, joined us on the 11th at daylight; we then stood towards Adele Island in the hope of being able to find anchorage under its lee, so as to obtain observations on shore from which to commence; but the small low island was found to be connected with Rossel Island, by a continuous reef, outside of which no soundings could be obtained. We then stood to the westward along the northern side of the reef in hopes of finding some passage through which we might enter the smooth water within, but ran close to the edge of the reef all the 13th of June without seeing one, which a boat could have entered. At sunset being off Peron Island we were obliged to haul out to seaward for the night, and on coming in with the land again in the morning commenced an examination of the reef at Peron Island, and proceeded till nearly noon, when a small passage was seen by the *Bramble*, which, Lieut. Yule examined and found safe with anchorage within: the *Bramble* led the way, and we truly found the passage narrow enough coming in from a heavy sea, as from subsequent survey it appears to be little more than a cable's length in width.

The moment we passed the outer reefs and found ourselves in a fine lake, the water perfectly smooth, and the depth varying from 20 to 15

fathoms, but so many small detached reefs were seen from the mast-head, that we anchored before getting involved in them, and sent boats away to sound; a good anchorage was found under the lee of a dry sand on the western end of a reef, near an island, upon which two villages and a considerable number of natives were seen.

The natives were at first very shy, but on the second day went off to the *Bramble*, and in a day or two more, went also freely to the *Rattlesnake* in their canoes, which are fitted with a single outrigger and mat sails, rudely set on poles rigged up to support them, against which the sails remain fixed by the force of wind only, no haulyards being used in setting them. Yams, plaintains, bananas and green cocoa-nuts were procured, but not at first in any great quantities.

After two or three days some of the officers landed, and succeeded in inducing the natives to communicate with them, but the jungle was so very thick near the beach, through which it was requisite to pass, in order to reach their village, that it was not prudent to run any risk by visiting them until more was known of their dispositions.

As so many natives could not be living for any length of time on an island, without water, search was made, and though enough was found to supply their wants, there was not enough to supply ours, but a fine stream was soon afterwards discovered on the south-east island by Mr. Brown, (the master,) to which we moved as soon as the *Bramble's* rudder was finished, and obtained an abundant supply.

During the time we were thus employed the native canoes came alongside freely every day to barter yams, cocoa-nuts and ornaments for pieces of iron hoop, which they seem to prize more than the common barter axes.

The *Bramble* went away to examine the southern coast of Isle Sud-Est, and when the *Rattlesnake's* water was completed, she was moved to an anchorage under the lee of a dry sand bank near Chamolet Island, when the pinnace, (Lieut. Simpson,) and the second galley, (Lieut Wayman,) went to examine the southern coast of Johannel island in order to ascertain if there was any passage for the ship in that direction.

The day after the boats left the ship, three canoes with about ten men in each tried to steal upon them while at anchor. They came alongside just before daylight, and after parleying for a short time commenced an attack on the second galley.*

---

* The transaction which is thus related in notes by the officer in charge of the boats, shows the treacherous character of these people, and how careful visitors should be never to be caught off their guard.

July 3rd, 1849.—At 8 A.M., left the ship at anchor under a sand bank south of Chamolet Island, in the second galley, traced the coast line from the south-east point of Johannel Island, to a small islet on its south-west coast; this islet is the west point of a harbour of some extent, in which the water appeared deep all over, excepting near the north-west part, where a reef stretches out from the shore towards the islet, to a considerable distance; we saw the natives on the tops of the hills above us, but did not communicate with them. Observing a single house in a small cove on the north shore, I

Lieut. Wayman found a channel to the southward of Johannel Island about a mile and a half wide, but full of small detached coral patches, so steep to that the lead gave no warning.

The *Bramble* examined the Southern coast of Isle Sud-Est as far as the Presqu'ile Conde, and saw numerous reefs and detached mushroom shaped masses of coral, two openings through the southern barrier reef, were surveyed, through either of which there is a clear passage to the sea.

Under the lee of the Duchateau Island, very good anchorage was obtained, and at this point the continuous line of barrier reef appears to end, leaving clear passages to seaward between the reefs surrounding the different groups of islands which form the south-west part of the Louisiade.

The Duchateau Islands are only visited by the natives occasionally for the purpose of obtaining turtle; but as soon as they found that we remained at anchor, a great number came over from the larger islands bringing yams and cocoa-nuts in great quantities to barter for iron hoops.

August 4th, the weather having moderated we proceeded to Duperre Islands, but finding no anchorage for the ship near the reef which surround them, we went outside in the ship, keeping close in shore during the day, to define the outer edge of the Islands and reefs; and in the evening stood out to seaward for about thirty miles, by which it was ascertained that the passage for at least that distance from the islands is quite free from danger, but we had to contend with such a very strong current which varied considerably in force and direction from day to day, that it was twelve days before we reached the Bruinie Islands off the south-east coast of New Guinea, under the lee of which good anchorage was found where we were detained a fortnight by constant rain.

---

landed with one man armed, and Mr. Brierly; it proved to be a fisherman's hut, in which was hung a sein, similar to those seen alongside. We touched nothing about it. At sunset finding a convenient anchorage under the point, we anchored in company with the pinnace, and about ten yards from her, both close to the shore.

July 4th.—Three canoes came alongside at dawn of day, in which, as the men and myself recognised some of the natives, and particularly a boy who had been to the ship, we commenced to barter with them as usual, both parties constantly repeating their usual words Kalooma. I ordered the rain awning to be furled, and while this was being done, observing that the three canoes (with about ten men each), clustered round the galley, and that a native in one on the starboard side, was trying his strength with Shirley, the coxswain, whilst others made a snatch at the musket near me, and a carpet bag; I ordered the anchor to be got up, and the boat to be paddled to the pinnace. The natives in the foremost canoe upon this, jumped overboard, and with the bight of the cable, tried to tow her on shore. The bowman having succeeded in getting the anchor over the gunwale, one of the natives made a blow at him with a large stone axe, and almost at the same moment, another made a similar cut at Shirley; some spears were also thrown, upon which I levelled the musket, and fired at one of the natives, who fell; another of them then threw a spear at Backhouse, which struck him in the arm, upon

On the largest of the Bruinie Islands two villages were seen, containing a considerable number of inhabitants, who came off to barter the morning after we anchored, with the most perfect confidence, and required very little persuasion to induce them to come on board. When the weather was at all moderate, we also had visitors from the main land, who came across on catamarans formed of three pieces of light wood, lashed together, similar to those used at Madras, they were of various sizes, some only large enough to support one individual, while others brought off twenty men, besides yams and cocoa-nuts for barter, the weight of which must have been considerable. The natives also had small canoes resembling in most respects those we had seen in the Louisiade, with one outrigger, and sails formed of the leaf of the cocoa-nut tree supported by poles, erected from different parts of the canoe: one very large canoe of superior construction, carrying twenty-five men, came off on one occasion only, but finding that in coming alongside there was danger of carrying away the mast, some of the upper works or outrigger, she did not return again.

On September the 4th, we anchored under the lee of Dufaure Island, in the Cul de Sac de 'l Orangerie where we had friendly communications with the natives, who were much the same in appearance as those previously seen. After remaining six days at the Cul de Sac de 'l Orangerie, detained by constant cloudy, rainy weather, we at last succeeded in getting a view of a magnificent high range of mountains: following the general trend of the coast to the northward and eastward some of the peaks being nearly as high as Teneriffe.

We left the Cul de Sac on the 10th September, and after contending

---

which they set up a loud yell of triumph; but the pinnace having commenced to fire, they paddled off with great rapidity. I gave them chase, and fired two or three muskets as they paddled round the bay, the pinnace having in the mean time mounted her gun, she fired a round shot, which passing close to the stern of one canoe, they all jumped overboard, and deserted it, and it was towed by us into the stream, after we had broken all the spears in her, and taken the swords out of her; a round of grape was fired afterwards by the pinnace, which however did not (I think) take effect. I questioned the men as to the beginning of this attack, from which, I feel assured that no provocation was given to the natives, but, that it was a planned affair to catch us asleep, and failing in this, they made the attempt under the cloak of coming to barter. After breakfast at nine, we weighed, and ran round the bay, which is full of shoals. A canoe which had come from the Grassy Island following us, the crew of which landed upon the point near the green peak, upon which there is a large village. While stopping off this point, fifteen to twenty of the natives, came down quivering their spears, and brandishing their axes, daring us to land; we took no notice of them. The sea hereabouts is full of reefs, so that we were obliged to work back to an anchorage for the night.

July 5th.—Were visited during the breakfast hour, by two canoes, with whom we bartered a little iron hoop, for cocoa-nuts: they were suspicious of us.

against cloudy weather, light winds and strong, but variable currents, reached a point which, from the peculiar colour of the cliffs, was named Redscar, near which we found anchorage, from whence a very high mountain was discovered in the interior, distant about forty-four miles, that rose to the height, by rough measurement, of 12,800 feet: as this was the highest part of the main range, and situated near the point in where M. Dumont Durville terminated his examination of the coast, it was named after him.

After leaving Redscar Point, we proceeded towards Cape Possession, we made sail for Cape York, carrying deep water across towards Bligh's Entrance, off which we obtained soundings in 66 fathoms, which gradually decreased as we approached Bramble Bay, under the lee of which we obtained good anchorage for the night, and then made the best of our way to Cape York, where we anchored on the 1st October, and on the 2nd, the "*Sir John Byng*" arrived from Sydney with stores and provisions.

---

## The Merchant Service Bill.

"That Ship is in perfect discipline, that displays the union of external regularity and internal order, with the experience of contentment and happiness on the part of her crew."

*Ship Barham, January 7th*, 1850.

Mr. Editor.—As my letter of the 9th of November, on the defective condition of the Merchant Service, and addressed to the Right Honorable the President of the Board of Trade, elicited some remarks and observations on that important subject from several of my professional friends, I was induced to write again to Mr. Labouchere, on the 12th of January, and urge the necessity of inserting a clause in the Merchant Service Bill, for the purpose of effectually checking and controlling the very serious and frequent offence of seamen refusing to serve after they had bound themselves by subscribing to the Ship's Articles.

From the information which I have obtained, it appears that this offence is of such common occurrence at other ports, that ships have been detained a considerable time, and a heavy expense has been incurred thereby; and that in most of the cases, the seamen themselves, had no just or reasonable grounds for the violations of their pledges. Moreover, I have been assured that the only redress commanders of ships could obtain, was the stoppage of a seaman's wages, whilst he persisted in his refusal to do his duty, and that, unless he declared that he would not proceed to sea, in the ship to which he was bound, summary measures were considered as beyond the jurisdiction of a magistrate.

It is therefore, obvious, that a grievance so inadequately provided for in Act 7th and 8th of Victoria, demands revision, and a sure and certain remedy. Under this conviction, in my own mind, I suggested to

Mr. Labouchere, that a clause should be inserted in the Merchant Service Bill, empowering Magistrates to issue a warrant for the immediate apprehension of every seaman, who may refuse to serve, and also afford those summary means of redress which the case would require. It is very evident, that good order and discipline, so essentially wanting to improve the condition of the Merchant Service, cannot be obtained unless a frivolous and vexatious refusal to serve is effectually eradicated. This evil prevails more in harbour than at sea, and is, in some instances, owing to a laxity of discipline when the commander is on shore, and when officers fail in upholding their authority, and betray a want of due judgment and discretion; whilst other cases prove that a love of change, the hope of indulgence on shore, and the probability of obtaining a higher rate of wages in another ship, are the causes which lead to this dereliction of duty, and breach of trust. But I have no hesitation in saying, that the majority of cases of this nature, prove that the conduct of seamen is exceedingly reprehensible, and would occasionally bear the stamp of a decided spirit of conspiracy or combination; because there are many proofs of more than half a ship's company striking work without the slightest provocation, or any reasonable cause of complaint against either their ship or their officers; and it is very certain, that when once a seaman has refused to serve, and persists in that refusal, the penalty he incurs of the forfeiture of six days' pay for every day he is off duty, very soon exhausts the balance of his wages, and renders him callous to ulterior consequences. Some cases of this description (within my own knowledge) would warrant the commitment of seamen for a conspiracy, and send them before a higher tribunal; but magistrates have been deterred from that alternative, because the detention of the ship, and serious losses would inevitably be the result of such a determination.

The following extract from a letter from the chief officer of the *Barham*, to my address, affords a remarkable instance of unprovoked and outrageous conduct, and a determination to quit a ship, and as it occurred on board one of the best regulated ships of the Merchant Service, it forcibly exemplifies the insubordination which is prevalent amongst seamen, and proves the necessity of amendment and reform, because it shews, that when seamen cannot obtain a discharge at their own will and pleasure, they will proceed to any extremity of violence to gain their end. "I beg to forward you a statement of the assault made upon me by three men in Calcutta, their object being to get their discharge from the ship, which they accomplished. I was seated at the cuddy table at breakfast, when a man of the name of May, came into the cuddy in a most impudent way, with his hat on, and said, (without preface of any kind,) 'Are you going to give me my discharge?' I, of course, said 'No, but if you do not go out of the cuddy immediately, I shall turn you out;' and I got up at the same time to put my threat into execution. I walked towards him, and he to me, and when we met at the end of the table, I had not the slightest idea that he was going to strike me. He then made use of a most in-

famous and abominable expression, and said, 'You will, will you.' He up with his fist and hit me one blow in the chest and one in the side. I closed with him at once, and we fell together on the cuddy deck. I called for the second officer, when we put him in handcuffs, and got him below to confine him in one of the lower cabins, he struggling and kicking most furiously the whole time. But just as we were doing so, two other men, Shaw and Robinson, came to his assistance, and one took off his shirt, and they all then began, the man with handcuffs, and the other two, to do us as much bodily harm as they could. Having three men now upon us, and not liking to use my fists to them, and not knowing how many more would join them, I called upon the second officer to desist, and we let them go, when we wrote off to the magistrate (Mr. Patton) at once, and took a warrant out against the three men for assault; the result of which was, that two of them were committed for three months to prison, and one for two. This is a correct statement of the case: I know of no reason for the man striking work, but the one that he wished for his discharge, and had no other means of getting it."

(Signed) J. W. VAILE.

Under these circumstances, it affords me much pleasure and satisfaction by giving publicity to the following reply to my letter to Mr. Labouchere,* and as the Merchant Service Bill is now before the House of Commons, I sincerely hope and trust, that Mr. Labouchere's zealous endeavours will have the full effect of improving the discipline, and ameliorating the condition of the Mercantile Marine:—

*Board of Trade, February 25th*, 1850.

SIR.—I am directed by Mr. Labouchere to acknowledge the receipt of your letter of the 12th ultimo.

Mr. Labouchere desires me to thank you for your suggestion, that a clause should be introduced into the Merchant Service Bill, to enable a Justice to punish a seaman refusing to serve after having signed an agreement, and to say that he is disposed to introduce such a clause into the Bill.

I am, &c.

*C. Biden, Esq.* (Signed) J. F. BARING.

In my letter of the 12th of January, I also strongly recommended that the method of keeping a Ship's Log in the Merchant Service, should assimilate as nearly as possible to that form which is observed in the Royal Navy, and that at all events, a uniformity of system should be ordained to enforce the reckoning according to civil time.† This form is in use on board some ships in the Merchant Service, whilst others persist in reckoning according to nautical time, and much con-

* My letter was despatched *via* Southampton, by the steamer on the 14th of January, and the reply reached me on the 2nd instant, occupying seventy-eight days, which for celerity and punctuality is worthy of remark.

† I am indebted to the Editor of the "*Bengal Hurkaru*" for this suggestion.—C. B.

[We recommended the same in 1841.—ED. *N.M.*]

fusion, and great difficulty in obtaining a true record of proceedings has resulted from such a diversity of practice, whereas, an improved method would tend to facilitate enquiry and research regarding the force of the wind, the state of the weather, and the currents of the ocean, together with other phenomena, both useful and interesting to that important object in view; which, under the able and talented investigation, adopted by Colonel Reid, Mr. Piddington, and other persons, has already afforded much valuable information, in furtherance of scientific pursuits, and especially for the guidance of mariners and the safety of navigation.

As Mr. Labouchere has declared his intention of amending and improving the method of keeping a Ship's Log, by introducing a clause in the Merchant Service Bill to that effect, I have no doubt that every well devised plan for obtaining that desirable object, will not fail to receive his favourable consideration.

The disaffection of seamen in the Merchant Service, and their unruly conduct is a national concern, and that this evil spirit is mainly owing to the insufficiency of our Maritime Laws cannot admit of a doubt, and there can be but one opinion, that a just and an equitable system of order and control, such as shall well define the limits of authority on the one hand, and the ties of obedience on the other, is essentially wanting. Tyranny, oppression, and ill usage should never escape with impunity, and when seamen are well protected, ably commanded, and have no just cause of complaint;—most assuredly the laws of their country should clearly and distinctly provide the means of enforcing that system of discipline and good order, which the interests of those who are entrusted with command require, and which those who are bound to obey should be forced to observe: the welfare and prosperity of navigation and commerce, and the security of life and property demand that measure of protection, and it should no longer be withheld.

Indulging in the hope and expectation that Mr. Labouchere's Merchant Service Bill, aided as it will be by the benefit of all those suggestions, and that practical experience which can be brought to bear upon it, will realize the best wishes of every true friend to the maritime interests of our common country.

I am, &c.

CHRISTOPHER BIDEN, *Attendant Master.*

*Madras, April 12th,* 1850.

As a further proof of the necessity of more summary and stringent means of preserving discipline, and for the prevention of desertion, I will briefly relate that a ship of 500 tons, laden with coal, arrived here about a month ago, without any shew of disaffection or insubordination among her crew; but when half her cargo was discharged, several of the ship's company, led on by the boatswain, and two other turbulent characters, demanded their discharge, which the captain, mildly, but firmly refused, and at the same time, he enquired why those men wanted their discharge, when they alleged several frivolous reasons. The

following day these men made another attempt to obtain their discharge, which was resisted. They then betrayed a spirit of insubordination, refused to do any more duty, and on the hands being turned up to muster for the purpose of ascertaining whether there was any cause of complaint, those three men, in a very insolent manner, declared that the ship was leaky, old and rotten, and unseaworthy, and that they would not proceed to sea in her. The captain reported all that had occurred to the magistrate, the men were forthwith apprehended, and without loss of time, they were brought before the Bench. At this time, their bad example had led away five more of the crew; in their defence they stated that the ship was unseaworthy, and that they would not go to sea in her. It was then determined, with the concurrence of the captain, to have the ship surveyed, and send the seamen on board to their duty, pending the result of the survey. On the following day the survey was held by the Surveyor of the Port, the Assistant-Master Attendant, and two ship carpenters; their report declared the ship to be staunch and sound, and perfectly tight. This was made known to the crew; but notwithstanding, the refractory portion of the crew persisted in their refusal to go to sea, and set their commander and officers at defiance. They were again apprehended and brought before the Police, where the survey report was read to them. They still persisted in their resolution, and five of the worst characters, including the boatswain, were sentenced to thirty days' imprisonment, the expense of the survey to be deducted from their pay, together with the forfeiture of their wages and clothes. The other men were sent back to their ship; but when the ship was got under way to proceed to another port, they again refused to serve, and the ship was brought to anchor, and two days were lost before this ship's crew could be completed. These men were, of course, sent on shore, and to enable the captain to supply their place, he was, in a manner, compelled to yield to their escape, by submitting to an exchange with other discontented seamen from another ship. This case proves a base and an unprovoked conspiracy, and the magistrates were prevented from committing the prisoners for trial before the Supreme Court, because it would have detained the ship at an unsettled season of the year; and as she was chartered, the consequences might have seriously injured the prospects of her voyage.

I am, &c.

CHRISTOPHER BIDEN.

*To the Editor N.M.*

---

## SPONTANEOUS COMBUSTION OF COAL, AND THE LAMENTABLE LOSS OF SHIPS AND LIVES CAUSED THEREBY.

MR. EDITOR.—The numerous instances of ships taking fire through spontaneous combustion, and the number of ships and lives which have been lost from the same cause, have so repeatedly been brought before

the public, that it would seem as if the parties most concerned in such calamitous events, were callous or indifferent to those remedial measures and suggestions, which have been from time to time communicated for the purpose of guarding against the fatal effects of an accident, to which so many descriptions of cargo are liable.

On this occasion, I will limit my observations to ships and vessels which have been on fire when laden with coal, and the vast spread and increase of steam navigation, has very materially added to the number of vessels freighted with that essential article, and as much dependance is placed on the arrival of coal at the numerous depots, in all parts of the world, it is very evident that the failure of transit may be attended with serious consequences. Surely then that cause alone is deserving of every care and precaution, but, when we take into consideration the destruction of ships and the loss of life, the question is of tenfold importance, and it should no longer be neglected.

The ship *London*, lately arrived from the Cape, having brought intelligence of the destruction of the ship *Ocean Queen* by fire, has induced me to resume this subject, and I am much indebted to Capt. Sceales for the following particulars of that disastrous event.

The *Ocean Queen*, Capt. Jewell, of 737 tons, with a full cargo of coal, was bound to Suez, and had reached to lat. 22° 30′ S., and long. 53° E., on the 23rd of December, when she caught fire and was burnt. Capt. Jewell suspected that the coal had ignited two days before the crisis, when he proceeded forthwith to ascertain the fact, and on the hatches being taken off flames burst forth, and then every effort was made to subdue the fire. But so soon as it was found that that was impossible, Capt. Jewell adopted the most energetic measures to save the lives of his crew by preparing, and fitting his boats in the best possible manner for the perilous voyage which they would have to encounter. The gunwales were raised with canvas well shored up, an ample supply of water and provisions, with some beer, wine, and spirits, were provided, and with all things needful, the captain and crew abandoned the *Ocean Queen* on the 23rd of December, when her burning masts fell by the board, and soon after their departure her hull was in a perfect blaze, and she blew up before the boats were far away.

In the heart of the S. E. trade wind, it was considered impossible to pull or beat to windward and make for the nearest port, either at the Mauritius or Bourbon, therefore the two quarter boats or cutters, Capt. Jewell in the one, and the second officer in the other, with seven or eight of the crew in each boat, and the launch, with the chief officer and the remainder of the ship's company (thirteen or fourteen men) bore away for Madagascar. The nearest point was Cape St. Vincent, a little to the northward of St. Augustine's Bay, which bore from the *Ocean Queen* W. $\frac{1}{2}$ N., 550 miles. The boats kept company two days, but unfortunately the launch separated during the second or third night, and was never seen afterwards. On the 30th of December, both cutters were picked up by a French homeward-bound ship, and her worthy commander hoisted in the *Ocean Queen's* boats. She proceeded forthwith to the

Cape, where Capt. Jewell, and the two boat's crews were landed. On the 14th of January, the day before the *London's* departure, Capt. Jewell told Capt. Sceales, that the kind and generous treatment himself and his shipmates had experienced from the French commander, was beyond all praise; he also said that his boats were so well fitted, and so amply stored, that he had every confidence in their safety and escape, and as the launch was the best adapted boat for the voyage, we may indulge every hope that good tidings will soon announce her safety, but still there is much reason to apprehend ill-treatment from the treacherous natives of Madagascar. The cutters were seven days and nights in the open sea, the heat was great during the day, (under a vertical sun), but as the nights were cool they did not suffer very much, they lived chiefly upon ham and biscuits, and luckily had an abundant supply of water.

And now, Mr. Editor, I beg leave to furnish you with a list of coal laden ships, which have been destroyed under the fatal effects of spontaneous combustion, and also a list of those ships which, under the same effect, have narrowly escaped destruction; and assuredly such numerous examples, do most forcibly indicate the urgent necessity of that prevention and precaution, which the aid of science and the test of experience, cannot fail to devise and provide. Some remedies have been frequently suggested, but none have yet been tried, and why not? Can a trifling expense or any expense at all be offered as an excuse, when ships, lives, and property, are placed in imminent peril, and these consequences are more or less involved, by the despatch of every coal laden ship, because past experience shews, that all cargoes of coal are liable to spontaneous combustion? The following list is gathered from well authenticated reports, and I have reason to believe, it does not contain a full statement of the loss of ships through spontaneous combustion of coal, because, I am afraid, that some of the missing ships sent across the Atlantic, may have foundered from that same cause.

*Imprimis.*— The ships destroyed by fire, are as follows:—

1. H. C. steam vessel *Madagascar*, Capt. Dicey, burnt in the China Sea, owing to spontaneous combustion of her coal, fifty-seven of her crew perished, September 19, 1840.

2. American steam frigate *Missouri*, coal caught fire at Gibraltar, and she was burnt to the water's edge, but through the exertions of British men-of-war, her crew were saved, August 23, 1843.

3. The *Robert Napier*, steamer, caught fire on a voyage from Londonderry to Liverpool, engines and cargo saved, no lives lost, July 24, 1844.

4. Steam ship *Grana Uile*, burnt at sea, her captain and several of the crew lost, April, 1847.

5. The steamer *Experiment*, from Sunderland to London, was burnt off Aldborough, fortunately the *Clarence* steamer was in company, and saved all her passengers and crew, (80 persons,) April 30, 1847.

6. Ship *Palestine*, bound to Aden, (laden with coal which ignited,) was burnt at sea in lat. 26° S, long. 58° E. Crew took to their boats, were picked up at sea and saved, February 4, 1844.

7. Ship *Droimore*, cargo coal, on fire off the Cape. Barque *Crishna* hove

in sight, when the *Droimore* was abandoned, and her crew were taken to the Cape by the *Crishna*, August 6, 1845.

8. Ship *Royal Consort*, burnt to the water's edge off Calcutta; fire originated in the forehold, where there was a quantity of coal, September 12, 1845.

9. Ship *Achilles* from Leith to Calcutta, cargo coal, caught fire in lat. 38° 50′ S., and long. 20° 30′ E., bore up for Simon's Bay, flames burst forth when the hatches were taken off; she was then run on shore and scuttled, September 16, 1845.

10. The ship *Erin*, of Liverpool, with a cargo of coal, and bound to Quebec. A fortnight after her departure from Liverpool, it was discovered that she was on fire, all hands were employed to work down to where the coal had ignited, but flames issued forth, and within two hours they burst through the deck; the ship was then abandoned, and soon afterwards sunk, but most fortunately during the night, the *Erin's* boats were picked up and her crew carried to Quebec, where they arrived on the 29th July, 1846.

11. The ship *Mayfield*, from London to Bombay, with a cargo of coal, caught fire through spontaneous combustion, and was burnt off Severndroog on the 23rd of February, 1848. Crew saved.

12. The emigrant ship *Caleb Grimshaw*, from Liverpool and bound to North America, with 457 persons, (passengers and crew,) and a cargo of iron and coal, caught fire in the hold, when off the Western Islands, owing, it is supposed, to spontaneous ignition of the coal. Strenuous endeavours were made to subdue the fire, which continued to rage below hatches during ten days, when most providentially the barque *Sarah* hove in sight, and her excellent commander, Capt. Cook, kept company with the burning ship, until the weather permitted the *Caleb Grimshaw's* passengers and crew to be safely got on board the *Sarah*. But this sad catastrophe led to the loss of 101 persons; the fire broke out on the 4th of November, and the survivors were landed from the *Sarah* at Fayal, on the 27th of November, 1849.

13. The *Ocean Queen*, burnt on the 23rd of December, 1849, two boats with Capt. Jewell and fourteen men, were picked up on the 31st, and landed at the Cape. The launch, with the chief officer and fourteen men, were rescued by the French ship *Gol*, carried to Bourbon, and thence to the Mauritius by the French man-of-war steamer *Cassini*, on the 7th of February, 1850.

14. The *Ben Lomond*, laden with coal, from Leith, anchored off the Point at Aden on the 19th. It was discovered that she was on fire through spontaneous combustion three days before her arrival; closing her hatches, and other prompt measures, kept the fire under, and on the 20th, she was scuttled and sunk. The *Ben Lomond* stands in Lloyd's Register, a ship of 497 tons, new measurement, and was built at Quebec in 1845. It is possible with the aid of divers, that the *Ben Lomond's* cargo may be saved.—Aden, February, 20, 1850. Recent intelligence from Aden states, that the *Ben Lomond* had been hove up without any serious injury to her hull.—C.B.

### Steamers and Sailing Ships on Fire, but escaped Destruction.

15. The *Shannon* steamer, on fire owing to the ignition of her coal at Plymouth, her spars and booms burnt, and otherwise the ship received much damage, December, 1846.

16. H.M. steam ship *Shearwater*, fire broke out, first in one bunker and then in another, and was not quenched until great damage had been done, March, 1847.

17. H.M. store ship *Tortoise*, at Ascension, with a cargo of coal, was dis-

covered to be on fire owing to the ignition of coal, when after incessant labour, during four days and nights, her hold was cleared and the fire subdued, but not until her beams were burnt through from three to five inches, March, 1847.

18. Barque *Madonna* from Portsmouth to Ceylon, laden with coal, on suspicion of fire on the 26th of September; about sixty tons of cargo were thrown overboad, smoke and great heat induced her commander to bear up for Table Bay, and she was ran on shore on the 3rd of October, 1845. Cargo saved, and the ship was hove off.

19 Ship *Lady East*, from Liverpool to Singapore, with 600 tons of coal, which ignited off Acheen Head on the 14th of November; unremitting exertions during five days and nights, subdued the fire, and she bore up for Penang early in December, 1845.

20. Barque *Ann Grant*, coal laden from London to Bombay, when off Goa on the 30th of April, smoke was seen to issue from the hold, and her cargo was on fire, Capt. Foreman and his crew did their utmost to subdue the fire. She was got safely into Bombay harbour, and then she was run aground off Magagon and scuttled, and the fire was overcome. The Captain and crew were well rewarded for their good conduct by the merchants and underwriters of Bombay, June, 1846.

21. Barque *Madura*, Capt. Hope Smith, when discharging coal at Aden, it was discovered that combustion had commenced in the lower part of the hold. Through prompt assistance and incessant exertions for several days and nights, and having scuttled the ship until seven feet of water was in the hold, the fire was subdued on the third day, December 3rd, 1846.

22. Barque *Abbotsford*, Capt. Marshall, with a cargo of 500 tons of coal, from London to Singapore, was discovered to be on fire when off Acheen Head, and put in at Penang, when she was scuttled and shot were fired into her hull. With prompt assistance the fire was subdued: the coal had ignited in the lower part of the hold, as her kelson, the lining, and stanchions were in some parts much burnt, and in other places charred. The fire was discovered on the 26th of December, 1849, and on the 31st she reached the harbour.

Total, fourteen ships destroyed by fire, with about 170 persons who perished; and eight ships which narrowly escaped destruction, owing to spontaneous ignition of coal.

Beyond the sad and melancholy losses, which are thus upon record,* I am well aware that spontaneous ignition, has occurred on board other steamers than those herein specified, and their escape may be attributed to the division of their coal in compartments or bunkers, to due ventilation, to a good look out, and also to the ready means always at hand to supply water, and quench the first indication of fire. Whereas ships when coal laden, are deficient in those means, and as one remedy beyond what I have before suggested,† I would advise that every ship engaged to carry coal, should be provided with good bilge pumps, and a fire engine, or force pumps, and with lots of well trimmed fire buckets.

Under all these circumstances, there cannot be a doubt that Thermal indicators, ascending to the deck from different parts of a ship's hold, would

* The ships *Roxburgh Castle*, and *London*, in 1833, narrowly escaped being burnt, owing to the spontaneous ignition of coal, and those instances are the earliest of which I have any notice, and I believe they were the first which attracted public attention to the subject.

† Vide *Nautical Magazine* for 1845, p. 57, and for 1847, p. 583.

always give a timely warning of danger, and as I am of opinion that ignition must have commenced on board most, if not all, of the ships named in the foregoing lists, a considerable time before the discovery of fire, it seems very evident that earlier means of subduing the fire would have proved successful. But independent of tubes or Thermal indicators, I have, in my former communications on this important subject, recommended that small wells or compartments should divide the coal in different parts of the hold, for the purpose of giving a space to flood or swamp the locality of the fire, and also to enable the means of shifting and searching coal, as well as to afford the advantage of ventilation; whereas most coal laden ships fill the hold throughout, and thereby prevent that care and precaution which is absolutely necessary; and when it is considered that coal is a dead weight, it is obvious that no ship full of coal can be in proper trim or otherwise than overladen.

And here it may be observed, that spontaneous combustion may arise from the admixture of coal of a pyritous kind, and also from neglect when it is shipped in wet weather, because a quantity of wet coal, in the centre of a cargo, or at the bottom of the hold, may become heated until it ignites. However, all these causes and effects have been so ably discussed by my friend Mr. Piddington, and other talented persons, and they have been so freely made known to the public at large, that I shall content myself with the main object of this communication, which is to point out the serious consequences of past neglect, to shew what disasters have occurred, and to urge the necessity of that public enquiry which shall enforce a sure and effectual remedy; and I venture to say, that unless determined and decided measures are speedily adopted, Steam Navigation will be checked and impeded, more ships will be lost, and lives will be sacrificed! The interests of ship owners, of underwriters, and of every Steam Company throughout the British Empire, are very materially concerned in these important considerations and remarkable events. Moreover, the safety of Navigation, and the calls of Justice and Humanity, when thrown into the scale, must bear down all prejudice, all opposition, and ensure that amendment of system and those remedies which are so emergently required for the protection of life and property.

The following gratifying intelligence just received by the *Lyme Regis* from the Mauritus will be read with much pleasure and satisfaction, "Fourteen men and the chief mate of the *Ocean Queen* (burnt at sea). were picked up near the 'Ile aux Sables' by the French ship *Gol*, which arrived at St. Dennis, (Bourbon) on the 4th instant, from St. Augustine's Bay. The French man-of-war steamer *Cassini*, brought them to Port Louis on the 7th instant."—*Mauritius Price Current, February 14th*, 1850. By this report it would appear that the long boat was picked up some time in January; the Isle de Sable is distant from the *Ocean Queen's* position, when she was abandoned, about 400 miles.

I am, &c.,

CHRISTOPHER BIDEN.

*To the Editor N.M.* *Madras, 10th March*, 1850.

## Oral Traditions of the Cinque Ports.—*By Capt. K. B. Martin Harbour-Master, Ramsgate.*

(Continued from page 318.)

Such is the traditionary legend of Earl Godwin; but of what date asks the historian? That we cannot determine: the Danish as well as British and Belgic history makes the earl a companion of Canute, leading the Anglo-Saxons to the protection of Denmark when invaded by the Swedes; and the circumstances already mentioned of his prowess as far down as the reign of Henry II. cover a lapse of nearly two centuries. Here, then, we leave it to the researches of our Antiquarian friends; in their comparisons of historical records with tradition, and of the probable causes which have produced natural effects, which are still open to investigation, they will have a fund of amusement.

Leaving the Godwin Sands we find an effectual barrier to the sea, as respects any common cause, in the chalky cliffs between Broadstairs and Margate. Mer-gate was certainly very properly named, for, by an inspection of the chart, it will be found to be completely open to the German Ocean for an extent of many hundred miles, and our Norman conquerors doubtless called it the Sea-gate from that circumstance. It has suffered very much from tempestuous weather, agreeable to its history, the dates of which in the Cinque Port records shew it to have been a considerable place for many centuries, and its geographical position with London and the Thames gave it great advantages previous to the introduction of steam navigation.

The prevailing winds in these latitudes are from south to west. A sailing vessel leaving London had a weather shore and smooth water all the voyage to Margate, but the moment she opened the North Foreland her farther progress was against both wind and tide upon flowing water, and thus Margate was for a long period the metropolis of the Isle of Thanet to the citizens of London and the public spirit of its inhabitants was proverbial.

The promontory called the Nose (or Naze)—a familiar term with the northern nations for a headland, as, for instance, the Naze of Norway, and others, is by us called the Long Nose, or North Foreland, and we consider it the point forming the entrance to our noble rivers, the Thames and Medway; and shaping a westerly course from this along the land, we soon arrive off the Reculvers, in a most intricate and interesting navigation. We will now examine a little more closely the changes which have taken place here upon the site of the ancient Regulbium of the Romans. This then was the northern entrance of the channel which, according to the best-accredited historians, Bede, Solinus, and others, was three miles wide, and is stated by Antoninus, Tacitus, and Ammianus Marcellinus, to have been defended by a castle similar in its construction to Richborough. I have already described in a former page the nature and appearance of the embankment thrown into the mouth of the Wantsumn or Richborough channel, and mentioned

the Reculver Rock, or Regulbium of the Romans, where tradition states the Saxon kings occasionally dwelt, and that the Romans, before them, had a mint and armoury: part of this rock has been seen at very low tides during the last century, and has been described as a platorium of solid masonry. Stormy weather washes up Roman coin, and broken pottery; fragments of warlike accoutrements, &c., &c. This favours the opinion of some awful catastrophe, as no people would allow their riches and utensils to be buried in the waters, who had time and opportunity to withdraw them. The sea then has converted this renowned fortress into a sunken rock—advanced upon the shore and taken away dwelling houses—exposed the half-claimed graves of our ancestors, whose remains protrude from the bank and church-yard of Reculvers, and would have taken the sister spires themselves, but for the care of the elder brethren of the Trinity House; and yet while our historians in one page admit all this, in the next they tell us of a recession of the waters at the same place. They have rejected the traditions of our ancestors, *to reconcile easy and received opinions*, and neglected to examine into natural effects, which (as certainly as the water will find its level) confront them in proof of the testimony of our forefathers, and their decided, though romantic, oral traditions.

Could they invent these? Why then are the villages thus named, which are now miles from the sea?—holding up to perpetual remembrance, water-wades, wickes or arms, and roadsteads, bridges, and causeways. Let us now go afloat, and examine those parts which have become sands and shoals in like manner with the Godwin. In recent explorations by divers these remains are said to be prostrated uniformly in the same direction as if swept down by the pressure of a flood, bursting suddenly in upon them. Some historians tell us that the Sisters, or Reculvers, were originally three miles from the sea, and all admit that they must have been a considerable distance. That which was once land, in advance of them, is certainly very singularly named. It appears curious that the sands should be called The Horse, The Last, The Woolpack, The Hook, The Land, The Whitestable street, &c. &c. What does tradition say of these? The Horse, was the horse market; at the entrance of the Scheld there is a similar shoal called the Piedmart, or Horse market, and recorded in history to have once been such. The Woolpack, was the ground on which the article was deposited, in exchange for the produce brought by the Norksmen, which, agreeably to the present custom of their country, was measured out by the last, or double ton. The Hook, when the mouth of the Wantsumn existed, would be very similarly situated to other points of land thus named; as for instance, the Heuk or Hook of Holland. What are we to infer from the every day assertion we meet with? Those vessels are, or that vessel is, going *overland*; it astonishes landsmen, but seamen, from habit, take no note of it.

The long flat called the Land, having from four to six feet only upon it at low water, was an extensive pasture, extending from the Shepway or Sheepway, towards the mouth of the River Medway, and the rising

ground was covered with forest trees. Beautiful petrefactions and fossils of which were dredged up for many years, and by a peculiar process converted into Roman cement. When a terrible inundation swept away these fertile sheepways, or sheepwalks, and the rising point of the island itself, it was natural enough that our ancestors should say, when their first keels crossed it, "We are sailing or going over land," or that which was once land, and thus it is likely to be called through succeeding ages. Whit-staple, or White-staple, now Whitstable, was a town in the entrance of a haven, formed by the influx of the sea to the River Swale, and called Favers-hamn, or Faversham, now an inland town, but time immemorial a limb of the Cinque ports. The sand called Whitstable-street, was the site of the old town of Whitestable, which, according to tradition, was swallowed up by the sea, in like manner with Hastings, Winchelsea, and others:—and here let us once more observe the impossibility, that the levels of Sheepy, and the street of Whitstable, should remain under water while a recession of the sea took place in the sister Isle of Thanet. It is here worth while to contemplate the usual effects of earthquakes as observed in recent convulsions in other parts of the globe. I have before noticed that agreeably with my own observations upon Consul Reade's estate in the Azores (St. Michaels) the undulations remained, and the features of the surface were those of waves in an agitated sea. What had been a mound was a hollow, what had been a hollow was a mound, where a subsidence had taken place the contiguous surface was raised in wave-like uniformity, and this is supposed to have taken place in Holland when the islands were submerged, of which the little Rock of Heligoland is the only relic. The adjacent estuaries were raised; the industry of the Saxon race secured them by embankments and canals, and in a few centuries the abode of eels and crustacea became a powerful kingdom. Von Humboldt in his Cosmos justly observes "The boundaries of sea and land, of fluids and solids are thus variously and frequently changed; plains have undergone oscillatory movements, being alternately elevated and depressed." "Thus in following phœnomena in their mutual dependence, we are led from the consideration of the forces acting in the interior of the earth, to those which cause eruptions on its surface."—Page 132, vol. I.

It may excite surprise to the unobserving to be told, that "tremora," so called by the Azoreans, incipient earthquake is frequent here, and generally mistaken for distant salutes of heavy ordnance, except when it happens at night, when (as in July, last year) several persons arose from their beds in alarm; but how much more decided are the frequent shocks along the base of the Scottish mountains. Our tidal diagrams often exhibit very singular oscillations of the tidal column, which are de facto in miniature a similitude of the tumultuous heavings of the ocean upon a grander scale in those awful convulsions which have desolated whole provinces, and it is a decided coincidence that the whole sea line of our shore in the British Channel, affords similar evidences in the loss of its extensive havens by disturbances of the earth's

surface.—See vol. II, Geological Society of London, page 595 to 598. Of all the natural formations none are more uniform in their structure than the chalk basins and thus the dip of the chalk strata beneath the more recent deposits in all the valleys is easily ascertained by the inclined plane of the contiguous hills. By this rule the French geologists determined the depth of soil resting on the Parisian basin, and experience has in every known instance proved their theory to be correct. In like manner Mr. Fairholm pronounced the chalk at Minster to be 100 feet below the surface, the gentlemen there fancied they should reach it, in less than fifty, because the chalk down was so near them; their Artesian wells reached it in ninety-five to ninety-eight feet; they then pierced through the chalk fifty-six before they pricked a vein, when a beautiful supply of water arose to the surface.*

If I disinter a perfectly dome shaped Echini, evidencing a compression of one-fourth of its whole arch, which contains a solid *equal* to that by which it is enclosed, I naturally infer that the subsidence of the whole mass, must have been proportionably great and certainly derive another probable hypothesis "That oral traditions have some foundations in fact"; thus admitting the submergence of Godwin Isle or Islands, and the lifting of the bed of the Wantsumn, with the depression of the Sheepway, called the Land, and the sinking of the Pan Island and contiguous shoals, we have a series of undulations perfectly natural, and such as have occurred in our own day in distant parts of the earth.

Advancing to the rivers Medway and Thames, we leave the subject, and the jurisdiction of the Cinque ports. The Nore Sand, extending from the Isle of Grain, separates the waters of these noble rivers, and was formerly a narrow neck of land, and the Isle of Grain had a navigable channel in its rear, called the Zant-leet. Of the derivation of the Nore, and its having received its name from the Romans there is little doubt, Ora Mouth, Ore Mouths. N'Ore or an addition of en Ore, in, or, by the mouths of the Thames and Medway.

Thus we may perceive that, where smiling pastures cover the remains of ocean-deposited wrecks, the sea must at some time have flowed in an uninterrupted channel; and that while the wave hides beneath its crest the former dwellings of man, it proves their having once existed, by throwing upon the shore mementos of his pride, his riches, and his power. Let us then in our antiquarian researches enlist geological proofs, which as in the temple of Serapis come to our aid with all the dignity of science. Thus when the segment of a dock was laid bare at

* Paper by Mr. John Morris on the dislocation of the Chalk near Ramsgate, and the Rev. W. B. Clark, F.C.S., on the submarine forests of Bourne Mouth, Hampshire. In relation to the chalk I would recommend the geologists to examine the super position of the beautiful fossils, with which it abounds, and they will find them uniformly *crushed* in a direction *perpendicular* to the soil, as if by a sudden subsidence in an agitated state of the superincumbent mass, and as agreeing as to cause and effect with the dislocation of the chalk described by Mr. Morris, and which I have offered some remarks upon in my paper on the geological formation of the Goodwin Sands.—*Nautical Magazine.*

Minster, and I knew that its floor was elevated by some natural cause, far above the present level for such purposes, I doubted its origin; but when I was presented with a mechanic's tool of bronze metal evidently Roman, found within its precincts, I was satisfied that the same cause which had depressed the chalk hills, had uplifted this level, and I said, "Verily these sciences should go hand-in-hand." Looking across the level, my eye rested upon the beautiful spire of Ash, a village so called from its being the burial place of the Romans, and the reflection which such an association produced, was, can such speculations as these benefit us in the slightest degree? I know of but one way:—The Romans were as stars of the first magnitude, shining through a night of barbarism and depravity, they found the dwellers of these isles in a state of savage nudity; through a period of several centuries, they civilized them, and taught them the arts which embellish and render life delightful, although they were destitute of the lights to guide their path, which we possess as a more heavenly favoured generation; still they were a noble people; what youth is there who reads the Roman history and does not feel his heart glow in the perusal? Their martial deeds! Their manly self-devotion and fortitude! Their admiration of virtuous patriotism! The noble outline of heroic bearing in man! The connubial and filial endearing, yet *stern* and *chastened* love in woman! As warriors, statesmen, poets, their ambition soaring heavenward upon eagle's wings, yet satisfied with the meanest things of earth as a reward; are the ashes of the mighty inured around us, and have they left the future ages, no resemblance of themselves? Is there no coincidence in their destiny and ours? Surely there is, and indeed strongly marked by the finger of the Almighty disposer of nations! Their irresistable arms controlled the nations of the earth as if by miracle! They advanced but to conquer, to humanise, and to improve; and their prowess ushered in that period when, a new era brought forth a mightier than they; one who should go on conquering and to conquer! They over-ran the earth and England has borne the banner of the cross upon every sea that washes its shores. Let us like them, impart to our fellow men the fruits of such gifts and talents as God in his unspeakable goodness has bestowed upon ourselves, then shall we benefit our beloved country and perpetuate its renown to future ages.

> And Albion! Phœnix-like, from Roman ashes rise,
> Nursed by the impulsive strength of kindred sympathies,
> Then as the lapse of time shall roll away,
> And future nations, flourish or decay,
> Some trace of lov'd Britannia's fame shall last,
> And glory point to ages that are past.
> Her nervous language, now triumphant sounds
> Encircling earth to its remotest bounds,
> Justice sent forth by her, the oppressor band
> Crouch 'neath the terrors of her awful hand.
> See! where interminable wilds began,
> She calls the savage forth, proclaims him man;
> Lifts him from earth, directs his upward gaze,
> And speeds to heaven his earliest song of praise.

Opens the mental eye, the right to see,
And by one God-like word sets millions free.
Rome! renowned, our country shames not thee;
No! when her zenith day is darkly seen,
When mists of fading ages intervene,
Still shall her name and glorious deeds be heard
Where'er man's altars to his God are reared,
And when for ever sealed earth's destinies,
Philanthrophy and love shall bear them to the skies!

---

## Influence of the Moon on the Earth's Atmosphere.

*Kitlands, Dorking, 30th June, 1850.*

Sir.—The paper of which I send you a translation, was published by Mr. Arago in the "Annuaire du Bureau des longitudes" for the year 1833.

At first sight it would seem that the translation of a document, which was published seventeen years ago, must be a very useless waste of time; as every one who takes any interest in the subject, must already have met with either the document itself, or extracts which have been published in some of the popular magazines. I think, however, my brother officers will bear me out in saying, that the ideas current in the navy, relative to the connexion between changes of the moon, and of the weather, are most loose and unsettled; and that any facts on the subject that are proved to the satisfaction of so high an authority as Mr. Arago, must be useful to all whose business it is to contend with the winds and the waves, and cannot be too often repeated.

I am, &c.,

L. G. Heath,
*Commander R.N.*

*To the Editor N.M.*

## Does the Moon exercise any Appreciable Influence on our Atmosphere? *translated from the French of Mr. Arago, by Com. L. G. Heath, R.N.*

Astronomers, Natural Philosophers, and Meteorologists, seem for the most part to hold that the moon has not any *appreciable* influence on our atmosphere; but it must be confessed that they stand alone in this opinion. The world in general is against them. For instance, agriculturists and sailors assure us, they have constantly remarked that a change in the phase of the moon is invariably accompanied by a change in the weather.

So complicated a question cannot in these days be solved solely on theoretic considerations. It is only from long series of exact and methodically grouped observations, that we can expect to obtain indisputable results; and unfortunately, such observations are as yet but few in number, and extend over comparatively short periods.

For the sake of conciseness, I will here explain the technical terms which will be used in the course of this discussion.

The moon describes an ellipse round the earth, the earth being in one of its foci. It is called the "*Lunar Orbit.*"

That extremity of the major axis of this ellipse, that is nearest to the earth is called the "*Perigee.*"

The opposite extremity of the major axis, or the point of her orbit, at which the moon is at her greatest distance from us, is called the "*Apogee.*"

The *Perigee* and *Apogee* are sometimes called the "*Apsides.*"

The time taken by the moon in making one entire revolution of the heavens; that is to say, between leaving any star and reaching it again, is 27·31 mean solar days. It is called a "*Sidereal Revolution.*"

The apsides are not fixed points; they change their places from the west towards the east. Therefore, the time, which elapses between two successive passages of the perigee, is longer than a sidereal revolution. It is 27·6 days, and is called an "*Anomalistic Revolution.*"

Since the sun, as seen from the earth, appears to have a proper motion in the same direction as that of the moon, viz. from west to east, the interval between the moon's leaving the sun and reaching it again will be longer than a sidereal revolution. This period is found to be 29·53 days, and is called a "*Synodic Revolution*" or in other words a "*Lunar Month.*"

In the course of each synodic revolution the moon assumes different forms or "*Phases.*"

When the moon is at that point of her orbit, that is directly between the earth and the sun, the side which is illumined is that which is turned away from the earth; and that which, therefore, cannot be seen by reason of the opaqueness of the moon's substance. The moon is then said to be "*New*" or "*In Conjunction.*"

At 14·76 days from the moment of conjunction, the side illumined by the sun is turned towards the earth: the moon, then, has the appearance of a luminous disc, and she is said to be "*Full*" or "*In Opposition.*"

The word "*Syzygy*" is applied indiscriminately to express either new or full moon.

At a point midway between new and full moon, she takes the form of a semicircular luminous surface, the western side being circular and the eastern rectilinear. This is called the "*First Quarter*" or "*Quadrature*", because the moon's angular distance from the sun is then about 90° or a quarter of a circle.

The "*Second Quadrature,*" or "*Second*" or "*Last Quarter,*" is 7·4 days after full moon. It is the second time in any one lunation of her taking the semicircular form. But the eastern side is now convex, and the western side a straight line.

It has been found necessary for the purposes of certain investigations to give distinctive names to four other points of the moon's course. They have been called the "*First,*" "*Second,*" "*Third,*" and "*Fourth Octants,*" and are respectively situated, as the name implies, at equal distances between the new moon and first quarter, the first quarter and full moon, full moon and last quarter, and between the last quarter and the succeeding new moon.

The interval between new and full moon, or, the period during which

the visible portion of her enlightened hemisphere is gradually increasing is called the period of "*increasing*" or "*the waxing moon*"; and the interval between full and new moon, is, for a similar reason, called "*decreasing*" or "*waning moon.*"

*Has the moon any influence upon rain?*

This question was very carefully examined by Mr. Schubler in 1830. His data consisted of meteorological observations carried on in Germany during twenty-eight years, viz:

At Munich from 1781 to 1788.
Stuttgard " 1809 " 1812.
Augsbourg " 1813 " 1828.

He considered as "rainy days" all those in which the meteorological journal recorded a fall of rain or snow provided the quantity which fell was not less than two hundredths of a line. In classing the observations he included the day of the first quarter under the head of "Between new moon and first quarter," the day of full moon under the head of "Between first quarter and full moon, and so on.

| Intervals. | Rainy Days. | | | | | |
|---|---|---|---|---|---|---|
| | in the whole 20 years. | from 1809 to 1812 | from 1813 to 1816 | from 1817 to 1820 | from 1821 to 1824 | from 1825 to 1828 |
| Between new moon and the first quarter. ... ... ... | 764 | 132 | 142 | 145 | 179 | 166 |
| Between the first quarter and full moon. ... ... ... | 845 | 145 | 169 | 173 | 180 | 178 |
| Between full moon and the last quarter. ... ... ... | 761 | 124 | 145 | 162 | 166 | 164 |
| Between the last quarter and new moon. ... ... ... | 696 | 110 | 139 | 135 | 153 | 159 |
| During the waxing moon. ... | 1609 | 277 | 311 | 318 | 359 | 344 |
| During the waning moon. ... | 1457 | 234 | 284 | 297 | 319 | 323 |
| Excess during waxing moon. ... | 152 | 43 | 27 | 21 | 40 | 21 |

Hence it appears that the maximum number of rainy days occurs between the first quarter and full moon; the minimum between the last quarter and new moon. The number of rainy days in the latter period is to that in the former as 696 to 845, or as 100 to 121·4, or in round numbers as 5 to 6. The columns of four-yearly intervals give analogous results.

It seems then certain that it rains more frequently during the waxing than during the waning moon.

These results encouraged Mr. Schubler to discuss the observations more in detail and to seek for the epochs of maxima and minima to a greater exactness than could be done by dividing the lunar month into four parts only.

The results are here tabulated, both for the consecutive series of twenty years, and also for the whole twenty-eight years for which Mr. Schubler had observations. The mean of two consecutive days was taken for each epoch with the intention of weakening the effect of accidental disturbances.

| Epochs. | Rainy Days. During 20 years. | | During 28 years. | |
|---|---|---|---|---|
| | the day itself. | Mean of the two days. | the day itself. | Mean of the two days. |
| The day of new moon ... ... ... | 105 | 109 | 148 | 148 |
| " following day ... ... ... | 113 | | 148 | |
| " day of first octant ... ... ... | 119 | 117 | 152 | 150 |
| " following day ... ... ... | 115 | | 148 | |
| " day of first quarter ... ... ... | 111 | 112 | 156 | 153 |
| " following day ... ... ... | 113 | | 151 | |
| " day of second octant ... ... | 124 | 126 | 164 | 165 |
| " following day ... ... ... | 128 | | 167 | |
| " day of full moon ... ... ... | 116 | 115 | 162 | 161 |
| " following day ... ... ... | 113 | | 161 | |
| " day of third octant ... ... ... | 125 | 117 | 161 | 155 |
| " following day ... ... ... | 109 | | 150 | |
| " day of last quarter ... ... ... | 92 | 94 | 130 | 135 |
| " following day ... ... ... | 96 | | 140 | |
| " day of fourth octant... ... ... | 100 | 94 | 138 | 133 |
| " following day ... ... ... | 88 | | 129 | |

It is well to remark that during the twenty years there were 249 synodic revolutions of the moon and 348 during the twenty-eight years; so that the moon returned that number of times to each of the positions in the table.

The column of means, whether for twenty or for twenty-eight years, shows a tolerably regular increase of rainy days between new moon and second octant; and then a gradual decrease until the minimum is reached, somewhere between the last quarter and the fourth octant.

If we had a longer course of observations, we could easily make similar tables for each individual day of the lunar month. In that case, in order to eliminate the influence of accidental causes, it would suffice to class together the observations made for each single day. Mr. Schubler, without waiting until the riches of meteorology shall enable us to follow this plan, has attempted to anticipate its results by making the

means of several preceding, and of several following days, assist in determining the numbers for each characteristic epoch of the lunation. It is needless, to describe the particular method of interpolation which he has followed; any of the known methods would have produced the same result. A few words will suffice to explain the following table.

In the course of twenty-eight years there were in Germany 4,299 rainy days. For the sake of round numbers, Mr. Schubler has proportioned all his results on the supposition that there had been 10,000 such days. Thus, when we read the number 290 in the second column, we must understand it to mean that during a period of time in which there were 10,000 rainy days, 290 of them occurred on the day of the fourth octant.*

Number of rainy days in the South West of Germany corresponding to each phase of the moon during a period of time in which there were 10,000 rainy days.

| | | |
|---|---|---|
| The day of new moon ... ... | 306 | |
| „ 1st octant . . ... | 306 | |
| „ 1st quarter ... ... | 325 | |
| „ 2nd octant ... ... | 341 | maximum. |
| „ full moon ... ... | 337 | |
| „ 3rd octant ... ... | 313 | |
| „ last quarter ... ... | 284 | minimum. |
| „ 4th octant. ... ... | 290 | |

In 1788 Pilgram investigated the question whether there was at Vienna any connection between the lunar phases and rain. His results were as follows:—

In 100 observations of each phase there were,

| | | |
|---|---|---|
| At new moon ... ... ... | 26 | falls of rain. |
| At the mean of the two quadratures ... | 25 | „ |
| At full moon ... ... ... | 29 | „ |

Here as at Augsbourg and Stuttgard there were more rainy days at full than at new moon.* The comparison cannot be carried further, because at Vienna the two quadratures were not considered separately:

* In 1779 Poitevin obtained the following results from ten years' observations at Montpellier.

| | | | |
|---|---|---|---|
| At new moon ... ... | 1 | rainy day in | 4 |
| „ first quarter ... ... | 1 | „ | 7 |
| „ full moon ... ... | 1 | „ | 5 |
| „ last quarter ... ... | 1 | „ | 4 |

These numbers do not correspond with those of Mr. Schubler. At Stuttgard rain is less frequent at new than at full moon: the reverse appears to take place at Montpellier. In Germany it is more rainy at the first than at the last quarter: in the South of France the opposite rule seems to hold. Should this disagreement lead us to doubt the certainty of Mr. Schubler's results? I think not. And my opinion is founded principally upon the regularity of his figures. It must besides be remembered that Poitevin had but ten years' observations to work upon, and that he perhaps erroneously registered as rain, light mists which frequently arise from purely local causes. At all events the question is curious enough to merit a new discussion in which other data should be introduced.

but the agreement as far as it goes, is remarkable, because Vienna, Stuttgard, and Augsbourg, differ very much in the quantity of rain which falls at each place respectively.

At Vienna the mean annual fall of rain is 17 inches.
„ Stuttgard . . . . . 25 „
„ Augsbourg . . . . . 38 „

(Note by translator.) Although we cannot separate the two quadratures in the Viennese observations; we may combine those of Mr. Schubler, we shall then have

| | Pilgram. | Schubler. |
|---|---|---|
| New moon ... ... | 26 | 306 |
| Mean of two quadratures | 25 | 304·5 |
| Full moon ... ... | 29 | 337 |

which shows a still closer agreement than that pointed out by Mr. Arago.

*Influence of the Moon on the quantity of Rain and on the clearness of the Weather.*

Mr. Schubler formed the following table from the sixteen years' observations at Augsbourg, which embrace 198 synodic revolutions. It will be easily understood with the explanation that those days on which there were no clouds, at 7 A.M., at 2 and 9 P.M., were considered "clear"; and that when the sky was entirely overcast at those hours, the day was considered "cloudy."

| | Number of clear days in 16 years. | Number of cloudy days in 16 years. | Number of lines of rain which fell in 16 years. |
|---|---|---|---|
| New moon ... ... ... ... | 31 | 61 | 299 |
| First quarter... ... .. ... | 38 | 57 | 277 |
| Second octant — ... ... | 25 | 65 | 301 |
| Full moon ... ... ... ... | 26 | 61 | 278 |
| Last quarter ... ... ... ... | 41 | 53 | 220 |

These results agree pretty well with the preceding. We see, first, that clear days are by far the most numerous at the last quarter, which is according to the table in the preceding page, also the time of the minimum of rainy days; and secondly, that the largest number of cloudy days occurs at the second octant, the time also of the maximum of rainy days. With regard to the actual quantity of rain, we find, as we should expect, the maximum at the second octant, and the minimum at the last quarter.

*On the modification of Rain by the distance of the Moon from the Earth.*

When once we have established the fact of the moon exercising a certain influence upon our atmosphere, we are naturally led to suppose, that, whatever may be the nature of that influence, it will be materially

affected by the variations of distance between the moon and earth. Mr. Schubler finds in fact, that, during the 371 anomalistic revolutions, which took place in twenty-eight years it rained,

1169 times in the 7 days contiguous to Perigee
1096 „ „ Apogee

so that *cæteris paribus*, the nearer the moon is to the earth, the greater are the chances of rain.

From 100 observations for each phase made at Vienna, Pilgram found there were

36 rainy days at Perigee
20 „ Apogee.

*Summary of the above.*

If we confine ourselves solely to the more prominent points which arise out of the foregoing discussion, it seems difficult not to conclude that the moon does exercise an influence upon the earth's atmosphere; and that by virtue of this influence, rain falls more frequently about the second octant, than at any other time during a lunation; and less frequently between the last quarter and the fourth octant.

These results are, no doubt, very different from the ideas usually held on the subject by natural philosophers, and meteorologists; but how can they be disputed? Do they not arise from the arithmetical discussion of the observations? Perhaps it will be said, that, the observations do not extend over a sufficiently long period; that, the differences in the number of rainy days, corresponding to the differences in the phases of the moon, are merely accidental; that, if Mr. Schubler were to use another set of observations he might arrive at directly opposite results; that, he might, for instance, find the minimum of rain at the second octant, and the maximum at the fourth, &c., &c. —. These doubts, which at first appear plausible enough, are entirely dispelled by a simple inspection of the table at page 382. The influence of the phases of the moon is there shewn, not only for the total period of twenty years, but also in the same manner, and without any exceptional case, for the five short periods of four years each. Such an agreement cannot be ascribed to chance.

We shall find in our next chapter proofs of the influence of the moon on the terrestrial atmosphere, drawn from observations of a different nature, and still more convincing even than those of the German philosopher.

(*To be continued.*)

---

## The Barrow Monument.—*The Foundation Stone.*

The little town of Ulverston, at the head of Morecambe Bay, in Lancashire, has been "awakened from its propriety," and more than ordinarily busy of late, in doing honour to the memory of one of its sons.

We have occasionally alluded to the intention of the Friends of the late Secretary of the Admiralty, Sir John Barrow, to erect a tower at Ulverston, the place of his birth, and the ceremony of laying the first stone of it, on the elevated summit of Hoad Hill, took place on the 15th of May. The Barrow Tower, for the expences of which, a thousand pounds have been raised in a few short months, (so good was the cause which it advocated,) was then commenced under the most propitious circumstances of weather, and the most favourable auspices of some thousands of persons, who assembled from adjacent and distant parts, to do honour to the occasion. We find the following recorded in the *Ulverston Advertiser* of the next day, May 16th. In the pages of the *Nautical*, this little history will meet the eye of many, both at home and abroad, who will peruse it with deep interest, and for our own part, we acknowledge the gratification we derive in preserving it, not only from our admiration of the subject of it; but, also from a lively remembrance of the interest which Sir John Barrow always took in the attempts to be useful to our brother seamen, by improving their charts, and giving them useful and valuable information, by establishing and maintaining under every privation and difficulty, the success of the *Nautical Magazine.*

At an early hour the bells of St. Mary's Church sent forth glad peals, and the Ulverston brass band gave inspiriting and joyous strains from the Market-place, arousing the people to the coming events of the day. The Town Bank School, associated as it ever must be with the early life of the distinguished individual whose memory to future ages was about to be perpetuated, presented a gay appearance; wreathed in evergreens, with the proud Flag of England waving over its roof, and streamers floating in the breeze, stretching from the belfry to the eminence in the field adjoining, appeared glorying, as it were, in the once humble scholar it had sent forth upon the world to gather, in the paths of industry and science, reputation and renown. At the foot of the bank, a triumphal arch, decorated with evergreens and flags had been erected, displaying the very trite motto

"Be his the palm that merits it."

Over which was placed the Arms of the Barrow Family. Within a few yards, but of smaller dimensions, another was placed over the gateway of the Occupation Road, leading to Hoad, bearing the motto,

"Virtue survives the grave."

Flags also were seen flying on the site of the monument—on the steeple of St. Mary's Church,—on the vessels in the port,—upon the straw-roofed cot in which the late Baronet first saw the light of a world in which he was destined to enact so distinguished a part. Indeed, the streets appeared one continuous display of Flags, Banners, and Mottoes, evincing clearly and indisputably, that a great amount of taste and industry had been bestowed upon them by the fair damsels of Ulverston.

The town, indeed, as early as eight o'clock, presented, altogether, an

animated appearance; some hundreds of the inhabitants might then be seen congregated in groups in every quarter; and which, as the day advanced, were swelled by thousands more, who flocked in from the surrounding neighbourhood, to wait the formation of the procession.

It began to move at about one o'clock, under the direction of Sergeant-Major Bates, (W.) of the Duke of Lancaster's Own Yeomanry Cavalry. in the following order:

Superintendent Davidson, and the Members of the Ulverston Constabulary.
The Ulverston Brass Band.
The Pensioners, Naval and Military.
The Members of the various Friendly Societies of the Town,
With the Flags, Banners, and Emblems of the different Orders, arranged according to seniority, viz:—
The Union Friendly Society.
The Morecambe Lodge of the Independent Order of Oddfellows.
The Lightburne Star Lodge (branch) of the Independent Order of Oddfellows.
The Furness Star Lodge, of the Grand United Order of Oddfellows.
The Friendship, Love and Truth Lodge (branch) of the Grand United order of Oddfellows.
The Band of the Messrs. Salmon.
The Scholars of the Public Schools, arranged also according to seniority, headed by their Master and Teachers, as follows:
The Town Bank Scholars (day).
The Town Bank Scholars (Sunday).
The National Scholars (day).
The National Scholars (Sunday).
The Wesleyan Scholars (Sunday).
The Independent Chapel Scholars (Sunday).
The Roman Catholic Scholars (day and Sunday.)
The Ulverston Union Workhouse Scholars.
The Regimental Band of the 52nd Light Infantry.
Sir George Barrow and Mr. Barrow of the Admiralty, and friends, accompanied by the Committee and Subscribers.
Mr. Trimen, the Architect.
Mr. Smith, Contractor for the Works.
Messrs. Brocklebank, bearing Trowel and Level.
The Clergy, Magistrates, and Inhabitants of the Town and neighbourhood.

In this order the procession began to move at one o'clock, proceeding from the Market-place, through King-street, up Southergate, by the Town Bank School, where it halted, whilst the following verses, written by Miss Agnes Strickland, for the occasion, (a lively incentive to the elder scholars to act well the part allotted them) were sung by the children of the Infant School:—

We'll sing the Town Bank Scholar,
Who once was poor as we,
And won his way by merit
To wealth and high degree.

Three cheers for noble Barrow,
Ye Town Bank Scholars raise,
He was your elder Brother,
And well deserves your praise.

Three cheers again and louder,
Till Cartmel crags reply,
Old Torver from his mountain throne,
Shall echo back our cry.

The Dalesmen all shall listen,
And look to Hoad's green height,
While ancient school mates of the Bank
His story shall recite.

And praise the generous spirit,
Of him who ne'er forgot,
'Midst proudest scenes of splendour
Old Dragley's lowly cot.

Now three times three for Barrow,
The glory of our town;
And long may this Memorial,
His native mountain crown.

We'll make him our example—
For those who strive to gain
By noble means distinction,
Will never strive in vain.

At the conclusion of which the procession proceeded to the site of the Monument where it arrived about two.—The procession having taken ground under the direction of Mr. Bates, and so placed as to give a clear and uninterupted area round the base of the Monument, and the police, assisted by the members of the Friendly Societies appointed to keep the same from being infringed upon, the ceremony commenced by the children singing a Hymn, written for the occasion by Mr. John Stanyan Bigg, and set to music by Mr. R. Daniel, organist of the parish church. Respecting this beautiful Hymn we may mention here, that it had been the intention of the Committee in London, to request the late lamented Poet Laureate to furnish a composition of a similar character, but his unexpected illness and death prevented the accomplishment of the task. Mr. J. S. Bigg was then applied to and supplied the following:—

Lord of all light, and life, and love,
Lord of all majesty and power,—
Whose brightness beams in every star,
Whose goodness beams in every flower;
Amidst the splendours of thy court,
The undimm'd lustre of thy train,
Look on thy sin-stained worshippers,
And hear the burthen of their strain:—
To Thee be adoration given,
Thee in the highest,—King of Heaven!

Still 'mid the lightning-glitterings,
That from the wings of angels blaze,
The swelling harmonies that bear.
Loud Hallelujahs to thy praise,
Thine ear can catch the humble hymn,
Of every earth-born, infant lisper,
And smile approval on the prayer,
The still, mute echo of a whisper;
To Thee be adoration given,
Thee in the highest,—King of Heaven!

We praise Thee, O! thou Lord supreme,
For all the love and favour shewn
To one whose heart was often raised
In mute thanksgiving to thy throne;
One whose meek spirit was endow'd
With all the grace to virtue given,—
The peace, the joy, the blessedness,
And the sweet hope that comes from heaven
To Thee be adoration given,
Thee in the highest,—King of Heaven!

The ev'ning of a life well spent,
Drew on towards its tranquil close,
The shadows lengthen'd till at last,
Death like a slumber, brought repose,
And he is gone,—gone to a world,
Fairer and holier far than this,—
A world whose monarch is our God,
And the soul's portion—endless bliss;
To Thee be adoration given,
Thee in the highest—King of Heaven;

[We submit also here an extract from the Auto-Biography of Sir John Barrow, Bart., as shewing that through his instrumentality, Sunday Schools were first established in Ulverston.]

"All my old school-fellows had long ago departed this life. My little property has equally, long since, been disposed of. The younger and surviving branches of the family never knew me, and all that keeps up the recollection of the townspeople are a few Charities, with which my name, and others of my family here are associated; and of which there is one in particular I have reason to be proud of,—the establishment of a Sunday School. Just after leaving school, in a conversation with a young friend, we lamented that there was no such thing as a Sunday School, for the benefit of poor children, I suggested that we should prepare one; but how? there was no newspaper, not even a printing press. We, however, drew up a plan, and I undertook to stick it up on the market-cross, the night before market-day. We saw that it excited great attention; it was talked of: a person offered himself to undertake it, and it succeeded so well, that to the Ulverston Sunday School, I and some of my family are at this time Annual Subscribers."

Mr. Smith, the Builder, in a brief address, presented a beautifully wrought silver trowel, with ivory handle, to Sir George Barrow, together with a bottle containing the several current coins of the realm, viz:—Half-farthing, Farthing, Half-penny, Penny, Fourpenny, Sixpenny, Shilling, Florin, Half-a-Crown, Crown, Half-a-Sovereign, and Sovereign.—Also a copy of the *Ulverston Advertiser*; which having

been deposited, by the son of Sir George Barrow, in the cavity prepared for its reception,—

Sir George Barrow said,—The bottle now placed in that cavity contains the current coin of the realm, so that after many hundred of years, should it be opened, it will be discovered in what reign this monument was erected. (Cheers.) I will now proceed to lay the foundation stone, (which he then did, assisted by his brother, Mr. Barrow, amid the loud cheering of the assembled multitude.)

The stone with the following inscription having been lowered, received several strokes from the mallet, (one prepared for the occasion, wrought in mahogany,) and Sir George Barrow's son having applied the level, a mahogany instrument, to the stone, Sir George Barrow declared the stone properly laid.

ON THE 15TH MAY, A.D., 1850,
IN THE 13TH YEAR OF THE REIGN OF
HER MOST GRACIOUS MAJESTY, QUEEN VICTORIA,
SIR GEORGE BARROW, BART.,
AND JOHN BARROW, ESQ., F.R.S.
DEPOSITED THIS STONE TO RECORD THE
COMMENCEMENT OF THE
TESTIMONIAL TO THE LATE SIR JOHN BARROW, BART.
ANDREW TRIMEN, ARCHITECT.

Three times three cheers were then called for, which were given in a most enthusiastic manner.

Sir George Barrow then said,—" My esteemed friends, I had almost said my fellow-townsmen, from the hearty reception I have met with. This is a memorable day for Ulverston; I am here not to assist in raising a family monument only, though I hope that in the duty I am performing, I am obeying one of God's commandments, the first with promise, in honoring my Father; but I am here, on the part of the noblemen and gentlemen of England, who are subscribers to the monument, to lay the foundation of a testimonial, to record the high sense they entertain of the public worth of your revered townsman and my beloved parent. It is with just pride and real gratitude that I find myself called upon to take so prominent a part in this interesting ceremony, and the more so, as I am assured that you are content that the immediate descendant of your honored townsman should hold that position which might have been conferred on some eminent person. I rejoice to think that the departed worth of one who was born here, will now be brought home as it were to your daily memories, by the erection of this memorial, and I fervently trust that it may continue for ages an ornament to this beautiful district, a place of resort for its inhabitants, and for strangers, where many a tribute of respect will be paid; a beacon for the shipping of the bay, and an encouraging token for the guidance of the rising generation in the paths which lead to honour and renown. My kind friend and your excellent pastor will pray for a blessing on this undertaking, but I will offer one petition to the Author of all good, in which I am sure you will all join.

" O Lord prosper Thou our work upon us,
Prosper Thou our handy work."

The Rev. R. Gwillym made prayer as follows:—

" O Lord God Almighty, the Creator, Preserver, and Upholder of all things, both in Heaven, and in Earth, without whose blessing and protec-

tion nothing is strong, nothing can prosper, look down, we beseech Thee, with Thy favour on the work, we are here assembled to undertake. In no spirit of vain boasting do we lay the foundation stone of this memorial, in no feeling of pride or presumption shall we proceed with the superstructure. We desire by it to perpetuate the name of one, to whom Thou wast pleased to grant a long and prosperous life, and whom by thy grace Thou didst enable to do his duty faithfully and energetically amidst the varied and eventful scenes, through which he passed. We freely confess, we can neither think, nor do anything, that is rightful without Thee—to Thee, therefore, do we give all the praise of any worthy actions, which Thy servant performed: we bless Thee, for so ordering his steps that he was permitted to exhibit an example worthy of imitation in the fidelity and diligence, sincerity and devotion, with which he discharged his duty to his Sovereign and Country, during many years of active and arduous public service, in various climes, and under trying circumstances. Grant that the honourable name which by thy blessing he acquired, by the same blessing may prove the means of inciting others to pursue a like beneficial career.

"More especially we commend to thy favour and benediction the young persons here present, let Thy fatherly hand ever be over them, let Thy Holy Spirit ever be with them, and so lead them in the knowledge and obedience of Thy Word, that they may adorn the doctrine of God their Saviour in all things, and be useful members of the community, to which they belong. Let this be no empty Ceremonial, rather let it speak to them a stirring lesson, inculcating the duties of their respective conditions, and inspiring them with an earnest desire to perform all that is due from them. While they look on the scene before them, teach them in humble dependence on Thee, and with devout prayers for Thy aid to resolve, that they will lead no idle, and unprofitable life, but will seek Thy honour and glory above all things, and strive to deserve well of their fellow men, by devoting the best energies of their minds and bodies to promote the general good.

"Implant in their hearts, we entreat Thee, such principles of sound morality and pure religion that they may become loyal and dutiful subjects of our beloved Queen, true lovers of their country, and above all, faithful and obedient servants of the Lord Jesus Christ.

"Finally, we implore the contiuuance of those manifold and great blessings, both temporal and spiritual, which Thou hast bestowed on the Land of our Birth. Let Thine Almighty arm be extended over us for our protection. Let thy wisdom guide and defend our Gracious Sovereign Lady, Queen Victoria; direct and prosper the counsels and endeavours of those who are put in authority under Her, that in all things they may seek to promote Thy glory, and the welfare of mankind: let justice and holiness, let peace and love, with all the virtues which adorn the Christian profession, flourish and abound among us now and evermore. May all orders and degrees of men in their vocation and ministry truly and godly serve Thee, and unite in constant supplication for the help and direction of Thy Holy Spirit, and in praising Thee for Thy great and undeserved mercies towards us.

"Accept we beseech Thee, O Heavenly Father, these our imperfect prayers and intercessions, for the sake of our blessed Saviour Jesus Christ, in whose name we humbly present them before the throne of Thy grace.—Amen.

"Protect us, O Lord, in all our doings, with Thy most gracious favour, and further us with Thy continual help; that in all our works, begun, continued, and ended in Thee, we may glorify Thy holy Name, and finally, by Thy mercy obtain everlasting life; through Jesus Christ our Lord.—Amen."

Lord's Prayer. Benediction.

Soon after the devotional part of the ceremony was concluded, three times three were given for Lady Barrow.

Sir George Barrow, in acknowledging the compliment, said—On behalf of my wife I thank you most sincerely. I am sure this day can never be forgotten by either of us. I trust the work may go on and prosper.

Three cheers were then given for Mr. Barrow of the Admiralty, which compliment he briefly acknowledged; after which cheers were given for "The Lancashire Witches;" likewise for "Major Davis," now Lieutenant-Colonel commanding the 52nd Light Infantry.

Major Davis in responding, said,—"I thank you for the reception which you have given me. The late Sir John Barrow was an able and valuable public servant, and highly respected. He, (Sir John Barrow,) rose from the position of a poor man, by his own integrity and perseverence, to the high position which he held in the Admiralty. [He then briefly alluded to the travels of Sir John Barrow, and the works which he had published, and urged upon all present to follow his example. He also alluded to the many important Voyages of Discovery which had been sent forth from time to time, at his instigation, into the Arctic Seas: to the anxiety now felt in regard to Sir John Franklin's expedition, and to the great efforts which were being made to succour that expedition, and stated that his second son, Mr. Barrow of the Admiralty, had taken a most prominent part, and had been most indefatigable in his exertions in furthering the humane object.]

Sir George Barrow next called for three cheers for the Rev. R. Gwillym, which he acknowledged in a very appropriate address.

Major Davis proposed three cheers for the Clergy; which were given in a most admirable manner.

Four verses of the 112th Psalm, were then sung to the music of the 50th, by the children.

That man is blest, who stands in awe
Of God, and loves his sacred law;
His seed on earth shall be renown'd,
And with successive honours crown'd.

His house, the seat of wealth, shall be
An inexhausted treasury;
His justice free from all decay,
Shall blessings to his heirs convey.

The soul that's fill'd with virtues light
Shines brightest in affliction's night;
To pity the distress'd inclined,
As well as just to all mankind.

Beset with threat'ning dangers round,
Unmov'd shall he maintain his ground,
The sweet remembrance of the just
Shall flourish when he sleeps in dust.

The ceremony concluded by the regimental band of the 52nd Light Infantry playing the national anthem. This band, twenty-four in number, sent forth the most ravishing martial strains, and was certainly one of the great attractions of the day.

Never has the hoary hill that stands on the confines of our little town, witnessed an exhibition so imposing as that, which the proceedings of yesterday presented. The congregated thousands who had gathered from all quarters to witness the ceremony; the troops of bright-eyed children, belonging to the various Day and Sunday schools in the town; the members of the different Friendly Societies, each bearing their appropriate badges; the banners of the various orders flaunting proudly in the sunshine; the bursts of martial music, that at intervals startled

the echoes that slumbered in the surrounding valleys, and rural dells, all conspired to bring back tales of half-forgotten times, suggesting broken fragments, and affording sunny glimpses of the past, loosely connected together by an imaginary link of coincidences, till the whole produced a medley series of reminiscences, in which distant times and places, seemed strangely intermingled with one another, and with the present. The music and the banners, served to suggest the Age of Chivalry, when martial knights were ready to peril life and limb, for the light of "Ladye's eye;" while the singing of the children in honour of the departed, transported us to those times when the Minnesingers, and the Meistersingers of Germany, and the light-hearted Troubadors of Provence, improvised for the "pleasaunce" of their lordly patrons.

The scene itself was singularly in harmony with the reminiscences which the proceedings on the hill were calculated to awaken. To the north, the large form of Coniston Old Man appeared, lifting his pointed peak into the sky; while around him on either hand, but at a greater distance, the mountains of Westmoreland and Cumberland—a banded brotherhood—stretched their vast proportions over many miles of the distant landscape. Nearer at hand were hills of inferior altitude, between which, like opening vistas into fairy land, the eye ran up long defiles, catching in its course the smile of many white-washed cottages, standing in the midst of pleasant meadows, and verdant valleys. To the east, appeared the waters of the Bay of Morecambe, confined between the shores at Greenodd on the one hand, and the Cartmel chain of hills on the other, the opposite shore fringed with trees—a glorious mirror with a foliated frame; while to the south, the waters of the same bay gleamed over an ampler area, between indented shores, and bordered by luxuriant meadows, like the queen of beauty with a zone of emeralds, its shining surface reflecting a lustre as unspotted and untarnished, as the silver shield of Oberon.

Amidst this lavish magnificence of nature, it is only left for us to express a hope that the name of him, whose virtues this day's proceedings were intended to commemorate, may be as firmly established amidst the shifting sands of time, as are the rocky foundations of the mountain, whose summit is destined to be crested with the memorial to his honour.

The procession having re-formed, returned by the western side of the hill, on the serpentine paths recently made, egressing by the gate of Oubas Hill; thence by the Canal-head, Sunderland Terrace, Fountain-street, King-street, to the Market-place, where it took position, and dispersed with regularity and order.

The Friendly Societies were afterwards treated to dinner at their several Lodges, viz:—The Union Friendly, at Mr. Neale's, Hope and Anchor Inn, Duke-street; the Morecambe Lodge of the Independent Order of Oddfellows, at Mrs. Worthington's, Queen's Arms Inn; and its Branch Society, the Lightburn Lodge, at Mr. Gelderd's, the Victoria Inn; the Furness Star Lodge at the Grand United Order of Oddfellows, at Mr. Barnett's, the King's Arms Inn; and its Branch Society, the Friendship,

Love, and Truth Lodge, at Mr. Postlethwaite's, the Commercial Inn. The children of the Infant School were regaled by their patron, the Rev. R. Gwillym, at his residence, at Stockbridge; and all the other scholars (with the exception of those of the Workhouse) at the National School, in the Ellers; the Workhouse children, at the expense of B. Gilpin, Esq., partook of dinner at the Braddyll's Arms Inn, previous to setting out of the procession, and at its conclusion, after partaking of refreshments at the Workhouse, in the evening, were regaled by the same gentleman, at Dragley Beck, and encouraged in a succession of sports in the grounds and meadows there, which were kept up by the party with happy glee till the waning day compelled them to desist.

The company assembled on the Hill of Hoad at the above ceremony, were computed by the military gentlemen present at 8,000.

In returning from the ceremony, the procession, as it wound round the head of Hoad, formed one of the grandest and most imposing spectacles it has ever been our lot to witness. No description of ours would enable the reader to form a faithful conception it presented, as the serpentine walks became gradually filled, until from the top to the bottom, an apparently endless chain of living links of human machinery appeared to have been set in motion. The effect was heightened by the display of numerous gay coloured flags, which imparted to the whole, the character of a grand romance rather than a scene of reality.

Thus terminated the outdoor proceedings of this day of rejoicing; one that had never been seen before in Ulverston, and which was followed by "the gay and festive scene in halls of dazzling light," until a later hour. We shall content ourselves with preserving a few of the principal sentiments expressed on the occasion, inasmuch as that they not only do honour to their authors, but also to the memory of the man in honour of whom they had met. Possibly the singular nature of the occasion, and the generous flow of good fellowship and convivial feelings, as well as the honest feeling of respect for the memory of Sir John Barrow, which prevailed, may form an excuse, if we preserve entire the remainder of the proceedings of this memorable day. After the usual loyal toasts had been disposed of.

Major Davis then rose to propose the toast of the evening "The memory of the late Sir John Barrow, Bart.," in proposing which he felt a great personal gratification, the late Baronet having been an intimate friend of his own, as were also, h was happy to say, the whole of the family, and had been so for many years; indeed, he might say from his childhood. He felt it not only a gratifying, but a painful duty in standing before them to propose the toast, which he begged they would drink in solemn silence. Previous however to doing so, he would give them a short history of his late friend's career, as he thought many would wish to know something about it. He would do so to shew, that by steady perseverance, and by a man's conducting himself so as to be a benefit to himself and to his country, that by obtaining knowledge—and knowledge was power—a man might rise to the greatest dignity. (The gallant Major here traced the late Baronet's career from the time he left the town of Ulverston, to the period at which he succeeded to the post at the Admiralty, a situation which he held up to a short season before his death.)

Major Davis, amid loud cheering, proposed "the health of Sir George Barrow," and referred to the proceedings of that day, and the monument that was about to be erected in commemoration of the late Baronet, his father, the design of which was most beautiful, and reflected great credit on the Architect, Andrew Trimen, Esq. [A model of the monument was here exhibited to the company, the members of which expressed their admiration of the design.]

The toast was drunk with three times three and one cheer more, the band playing "Auld lang syne."

Sir George Barrow, in acknowledging the toast felt deeply sensible of the great honour conferred upon him. But at the same time he could not but feel the attention and kindness he had received, were shewn to him from the recollection of his dear father. Not that he felt the less proud of the honour they had done him, still he did not wish them to believe that he was vainglorious. It was the happiest day of his life— a day he could never forget, and he would assure them that he should ever feel the greatest interest in the welfare of this district, as did his father, their townsman, though he was never able to visit it; a fact which Sir George accounted for by stating, that during the forty years of his service at the Admiralty, the short time permitted him for relaxation, precluded him so doing. He then alluded to the year in which the Chairman celebrated his father's birth-day at Dragley Beck, a mark of esteem which was not only deeply and gratefully appreciated by the deceased Baronet, but by all the members of his family. He once more repeated, that he felt himself unable to convey to the company present, the intense interest which the proceedings of the day had raised in his breast, and the sense he entertained of the honour which had been done him, by all whom he had had the pleasure of meeting. (Cheers.)

The Chairman, in terms highly eulogistic of the services performed by the gallant 52nd, (Major Davis's regiment,) and stating at the same time, that he would introduce to the notice of the company, an old pensioner belonging to the same regiment, and who had fought in six out of the following battles in which the corps had been engaged, viz :—Hindoostan—Vimiera—Corunna—Busaco—Fuentes D'onor—Ciudad Rodrigo—Badajoz—Salamanca—Vittoria—Nivelle—Nive—Orthes—Toulouse — Peninsula—Waterloo; — proposed "the hea th of Major Davis and the gallant 52nd," and was confident if they should be engaged in any action hereafter, they would distinguish themselves as they had done in the days of yore. (Cheers.)

Major Davis (who now commands the regiment) expressed his thanks for the warm and handsome manner in which the toast had been received; and alluded in flattering terms to the old pensioner (who had entered the room;) and hoped if their services should be required, they would distinguish themselves as they had hitherto done. He concluded by stating that he had felt great pleasure in having had the good fortune to take part in the day's proceedings, and that he would at all times be ready to lend them his aid upon any occasion of a similar nature.

Sir George Barrow, in proposing the health of the worthy president of the evening, dwelt upon the highly satisfactory manner in which that gentleman had discharged the onerous duties of his office.—Drunk with three times three.

In reply, the Chairman, briefly and humourously acknowledged the compliment that had been paid him, and concluded by observing that his motto was

"Dictis Factisque Simplex."

and whenever he forgot to act up to it, he begged they would forget him.

The Rev. J. Baldwin gave "the health of John Barrow, Esq., F.R.S., upon whom, it was perhaps, not generally known, the mantle of his father had descended: in corroboration of which the reverend gentleman alluded to his literary attainments, and enumerated among his various works:—"Excursions in the North of Europe," "Tour in Austrian Lombardy," "Tour round Ireland," and "Visit to Iceland."

Mr. Barrow briefly expressed his acknowledgement of the honour done him, and his gratification with the ceremony of the day, and in conclusion proposed, "the Trustees and Lessee, Woodburne Postlethwaite, Esq., of the town lands," to whom they were all greatly indebted.

"Sir George Staunton, the London Committee, and the absent subscribers" was then given by the Chairman, and replied to by Sir George Barrow, who alluded to the services of Captain Becher, R.N., to whom he said the greatest praise was due, for the most kind and able manner in which he had conducted the whole of the proceedings of the testimonial to its speedy conclusion. He felt gratified that Ulverston had been selected as the place where the tribute of respect to their fellow-townsman was to be erected. (Cheers.)

The Chairman said, associated as his mind must be, from early recollections with the town of Preston, and there being present among them, a gentleman who held the highest municipal office of that Borough, with the company's permission he would propose his health. He then named T. German, Esq,; who in responding expressed the great pleasure he felt in being among them to do honour to departed worth. He was there unprepared to address them at any particular length, but this he would say, that the inhabitants of Ulverston had every reason to be proud of the honour which had been done them; the scene which he had witnessed that day was fraught with interest of the noblest character, especially to the mind of a young man like himself, just entering upon life. They had that day laid the foundation stone of a monument to be erected to their distinguished townsman, who not only obtained the favour of his sovereign, but also the favour of the British nation, and likewise the favour of his fellow-townsmen. He raised himself to the high position which he occupied, by his own individual exertions; and the monument—the foundation stone of which they had that day laid, would not only when completed record his memory, but would point as a beacon to travellers ploughing the briny ocean, by serving as a land mark: and it would also point a magnificent moral to the inhabitants of Ulverston. After a few more remarks upon the benefit likely to accrue to Ulverston from the erection of the monument, he congratulated the committee upon the talented architect which they had chosen, and concluded by proposing "the Town and Trade of Ulverston."

Drunk with acclamation.

Mr. Henry Dickinson, in a neat speech, acknowledged the toast.

The Rev. R. Gwillym remarked that a great omission had been committed in not proposing before "The health of Lady Barrow," who he might state had promised him that she would, accompanied by Sir George Barrow, visit them again on the completion of the monument. (Loud cheers.)

Sir George Barrow in returning thanks on behalf of his Lady, observed that he should feel great pleasure in accepting the kind invitation he and Lady Barrow had received from the Rev. Mr. Gwillym, to become his guest on the occasion named. He then proposed "The health of A. Trimen, Esq., architect."

Mr. Trimen, in a short, but appropriate speech, returned thanks. The chairman then proposed the health of the Dowager Lady Barrow and Miss

Barrow, regretting the omission, and the toast was received with acclamation.

J. Cooper, Esq., of Preston, was then called upon to propose the health of those men who had fought and bled for their country; who in complying with the wish said that he was proud to say that they had in the country men who had done the county good service; and after alluding to the service of the 52nd Regiment, and to the great self-reliance displayed by the late Sir John Barrow, he concluded by giving "The Pensioners, Naval and Military." (Cheers.)

"The health of the Vice-President," T. Woodburne, Esq., was next proposed by Sir George Barrow, which that gentleman acknowledged in appropriate terms.

The Rev. J. Hughes gave "The health of Miss Agnes Strickland," and referred to the hymn which she had written expressly to be sung by the infant children, in that day's ceremony, and the celebrity she had attained. (Cheers.)

Mr. Barrow proposed "The Lancashire Witches," which was received with due honours.

Major Davis proposed "The Lancashire Yeomanry Cavalry," and spoke of their efficiency in the highest terms of praise. (Cheers.)

Sergeant-Major Bates, (W.) on behalf of the officers and men, received the compliment of the gallant Major as highly satisfactory, and trusted the same efficiency would be preserved. He availed himself of that opportunity to return thanks on behalf of the Pensioners of Ulverston, and to thank the Chairman for former entertainments which he had given them, and also for the treat which they had now received. He then spoke of the kindness of Mr. Cooper to the Pensioners at Preston, whose liberality to them was well known and appreciated throughout the country.

"The health of H. Remington, Esq.," was then proposed by Sir George Barrow, to whom, he observed, they were greatly obliged for the services he had rendered that day, as a member of the committee of management.

Mr. Remington briefly acknowledged the compliment.

Sir George Barrow next proposed "The health of Mr. Stephen Soulby," who having duly responded to it,

"The health of Mr. J. Stanyan Bigg," was next given by Sir George, amid loud applause.

Mr. J. S. Bigg, in reply said—Gentlemen, I beg to thank you most sincerely for the kind and hearty manner in which you have responded to the toast which was just been proposed. I can assure you that it affords me great satisfaction to have my name brought forward, and received in such a manner, as it has been received, upon an occasion like the present, amidst an assemblage of my own fellow townsmen. There are few things in this world that contribute more to a man's self-complacency, and which suffice to establish him in that good opinion which every man, is, after all, at all times ready to entertain of himself, than the good opinion of those by whom he is surrounded; and as you have been pleased to testify to me, this evening, the good opinion entertained of me in no equivocal manner, I assure you that it has tended to elevate me in my own self-esteem to no inconsiderable extent. I trust, however, that it may have a more practical as well as a more beneficial tendency, in spurring me onward to renewed diligence, so that at some future time I may be more worthy of the compliment which has just been paid to me. (Cheers.)

We cannot close our report without bearing our humble testimony to the excellent performances of the 52nd band; whose enlivening and most appropriate airs throughout the evening, afforded the company a great treat. It

has seldom been our fortune to listen to music more effectively and pleasingly performed; and in speaking thus, we are sure that we are only expressing the opinions of all those who were present on the occasion.

The band was received with great applause by an immense concourse of people, as they passed through the town of Ulverston, on their return to Chester, having previous to starting marched to the hotel and played "Auld Lang Syne," and God Save the Queen.

---

## Capt. Austin's Arctic Expedition.

Our gallant little band of Arctic adventurers, are now on their way to solve one of the most painfully interesting questions in the history of Arctic discovery, that England has yet seen; and as is our usual custom, we have to record their departure, the fitting of their ships, their appliances, and their means of exploring those frozen recesses, wherein our long absent countrymen may be shut up. That many a heart beats high with anxious hope for a favourable issue of their voyage, is alas! too certain, and that those (we had almost said forlorn) hopes may be realized, and their efforts crowned with success by an omnipotent and merciful providence, is the nation's fervent prayer. While, therefore, our devoted seamen are making the best of their way across the ocean, which separates us from the scene of their dangerous enterprize, we will preserve their noble deeds for the page of history, and await the issue of the voyage. We shall preserve the accounts that have successively appeared in the papers of the day, as forming collectively an interesting history of their progress, up to their departure from these shores. And first of Capt. Austin's* ships, they consist of the following, and the particulars relating to them we find in that excellent *Naval* paper the *United Service Gazette.*

This expedition, pronounced to be the most completely fitted expedition that ever sailed from this country for the Arctic Seas, left Greenhithe this morning for their perilous voyage; the sailing vessels in tow of the screw steamers. During the past week we have had daily interesting accounts of their preparations for departure, and the visits of distinguished personages.

On Monday 28th of April, the Admiralty paid their visit in the steam-yacht, *Black Eagle.* Of the board and officers of the Admiralty, were the First Lord, Sir F. T. Baring, Bart., M.P., Rear Admiral Deans Dundas, C.B., M.P., Capt. Milne, the Hon. W. Cowper, M.P., Capt. Sir Baldwin Walker, K.C.B., Surveyor of the navy; and with them

| *Ships.* | *Guns.* | *Men.* | | *Commanders.* |
|---|---|---|---|---|
| Resolute... | 4 | 60 | | Capt. Austin, C.B. |
| Assistance | 4 | 60 | | Capt. Ommanney. |
| *Steamers.* | | | *h.p.* | |
| Pioneer (sc) | 2 | 30 | 60 | Lieut. Osborn.....Tender to Resolute. |
| Intrepid (sc) | 2 | 30 | 60 | Lieut. B. Cator ...Tender to Assistance. |

* This officer's orders appeared in our last number.

the Earl of Minto, Admiral Sir Charles Adam, K.C.B., Governor of Greenwich Hospital: Rear Admiral Sir James Gordon, K.C.B., Lieutenant Governor; Rear Admiral Bowles, C.B., M.P.; Commodore Eden; Captain Lord Clarence Paget, Lieutenant Robertson, and Mr. Humphreys.

Their Lordships found the *Resolute* and *Assistance* much better looking ships than the *Enterprize* and *Investigator*, and, compared with them, the former possess many improvements and advantages in their internal fittings and arrangements, as well as in the description and quality of their stores. The ships are less lumbered up than the *Enterprize* and *Investigator*, whilst we believe they have more stores than the latter carried. Their Lordships will, we are sure, feel great satisfaction at having given Captain Austin a *carte blanche* in respect of the equipment of the vessels, and will be much gratified to hear that the authorities at Somerset House have done their utmost to carry out their Lordships' wishes in so speedily providing the multifarious articles requisite for the sustenance, comfort, and convenience of the officers and crews in the dreary regions to which they are proceeding. Scarcely an article has been put on board but it has first been inspected by either Capt. Austin himself, or for him by Mr. Biggs, (late of the *Enterprize*, who has acted as the gallant Captain's secretary,) and one or other of the present expedition, of whose experience in the late enterprise under Sir James Ross, the gallant captain judiciously availed himself. Their Lordships have reason to approve most highly of the exertions of the Woolwich Dockyard Establishment, under the indefatigable and zealous personal superintendence of Commodore Eden, for it has been only by the hearty and cordial co-operation of the Dockyard officers (especially that of Mr. Rice, Assistant Master Shipwright of Portsmouth, who was specially appointed by the Admiralty to superintend the fitting of the ships), and the Flag-Lieutenant, Mr. Gore, and the officers of the Ordinary, with the officers of the Arctic ships, that they have been completed comparatively early for their hazardous service!

The *Pioneer* left Woolwich on Monday, but the *Intrepid* did not go down until Wednesday. She did not go into dock until three weeks later; and can too much credit be given to Lieutenant J. Bertie, commander, his officers, and ship's company; and to Messrs. Peake and Moody, of the Woolwich Dockyard, for their night and day exertions?

The Admiralty were much pleased with the appearance and condition of both ships and crews, and were not sparing of their compliments on all sides. Capt. Sir James Ross, Capt. Sir E. Parry, Capt. W. A. B. Hamilton, (second Secretary to the Admiralty), Mr. Barrow, of the Admiralty, and others, have also been on board during the past week. Sir James Ross expressed himself to the effect that no Arctic expedition was ever so perfectly fitted as Capt. Austin's; and Sir E. Parry expressed similar opinions.

Up to the latest moment the squadron was receiving miscellaneous articles from various sources, to increase their comforts and to promote amusement and recreation. The Society for the Diffusion of Useful

Knowledge, we are gratified to hear, has presented the expedition with a choice collection of useful volumes; and the Admiralty, among other works, has supplied the ships with copies of that very interesting work, "O'Byrne's Naval Biography."

With respect to fittings, &c., we may state that, excepting iron bulk-heads for coal holes or side bunkers (an improvement), Downton's pumps worked on lower deck, and Sylvester's heating apparatus being extended ten feet before foremost cabins on lower deck, all is as *Enterprize* was. All the scuttles, or deck lights screw in and out for ventilation fore and aft; and Sylvester's stove having a current of air direct by a tube from upper deck, will carry off much of the damp or condensed vapour, the ill effects of which were experienced in the last voyage. Of boats each ship has—1st, a life boat thirty feet long, and nine feet beam, built by White of Cowes; 2nd one diagonal cutter, twenty-five feet long, seven feet two inches beam, fitted with trunks and windlass for laying out or weighing an anchor. Then four of twenty-five feet clinker-built gig cutters, or combination boats, pulling six oars, each single banked. One twenty-five feet whale boat of four oars as captain's gig; and one twelve feet dingy, and one seven feet punt, the last about 80 lbs., weight, and would convey safely two men at a time; in addition, they have one large and one small india-rubber or Macintosh boat, inflated by bellows. Total of boats, nine of wood and two of air-tight india rubber Macintosh. The sledges are similar to those constructed for the last expedition, but wider shoeing on the sole of the runners; the flat sledges are six inches wider, and two feet longer than the last were, with a high curve in the forepart There is a gutta percha oblong trough fitted on top of the travelling sledge, that is supported by four small iron uprights, passing through the upper part of the sledge. This trough serves to hold the articles stowed or being strapped to the sledge, and will from its buoyancy make a tolerable boat, being only about 18 lbs. weight, yet will support 6 cwt. in the water. They have a large yet light cooking apparatus, capable of baking for all hands, or heating washing water for the men, with a small proportion of fuel; they have also very compact light cooking apparatus heated by spirits of wine; and prepared cloth for tents, with bamboo poles for ditto.

The equipment for the travelling parties of the expedition, has been arranged entirely by Lieut. M'Clintock. It comprises eighteen tents, each to hold seven persons, eighteen Macintosh floorcloths, bamboo tent poles, hair rope; tin travelling kettles, with spirit lamps and spun glass wicks, fourteen large sledges upon runners, twelve small flat sledges for soft service; tin cans of two and four gallons each, the bung covered with a cap, which also serves as a gill measure, and secured with a padlock; patent chocolate, prepared with milk and sugar; pocket chronometers, pocket sextants, telescopes, and compasses; forty gallons of spirits of wine; two wolf skin blankets for each tent, one thick blanket bag for each person to sleep in, a knapsack for each man; eight gutta percha sledge tops, to adapt the sledges to crossing narrow spaces of water as rafts or boats, and thus avoid the necessity of unloading and using a boat; six of

Lieut. Halket's inflated boats; forty pair of Esquimaux winter boots; and thirty balloons to each ship.

The above ships with the *Dasher*, *Advice*, and *African*, steamers, Capt. Austin's Arctic Expedition, left Greenhithe on Saturday morning at 7 o'clock. Some little delay took place with one of the screw steamers, which was, however, very speedily remedied.

On the eve of the sailing of Capt. Austin's expedition, the officers entertained at dinner, on board the *Resolute*, Mr. Biggs, late of Sir James Ross's expedition, who has acted as secretary to Capt. Austin in fitting out the ships under his command; and in the course of the evening the senior lieutenant, Mr. Aldrich, on behalf of the officers of Capt. Austin's squadron, presented Mr. Biggs with a very handsome silver salver, purchased at Hunt and Roskell's, prefacing the presentation by reading the following appropriate letter:—

My dear Biggs—The officers of Capt. Austin's expedition, feel so much their obligations to you for all your kind care and attention to their wants and comforts, in the fitting out of the *Resolute*, *Assistance*, *Pioneer*, and *Intrepid*, that they cannot say 'Good bye' with a mere expression of grateful thanks. They feel, indeed, that they are so much indebted to you for your watchful labours in anticipating their requirements, and for the good offices you have rendered them by devoting your great experience, and your kindly services to their special advantage, that they beg of you to accept as a memento of their general esteem, regard, and friendship, the accompanying small present, and wish you with all their hearts, health and prosperity in your future career, and success in every relation in life.

"Given at Greenhithe the 3rd of May, 1850, on behalf of the officers of the expedition.

"R. D. ALDRICH, Lieut. H.M.S., *Resolute*.
"F. L. M'CLINTOCK, Lieut. H.M.S. *Assistance*."

The salver bore the following inscription:—

"Presented to James Biggs, Esq., R.N., by the officers of Capt. Austin's Arctic expedition, May 3, 1850."

It need scarcely be said that Mr. Biggs's health was drunk with three times three on the occasion, and that he returned thanks for the distinguished compliment unanimously paid to his services in befitting terms.

The squadron anchored off Orfordness on Saturday evening, at seven o'clock, and the *Advice* left on Sunday morning, and returned to Woolwich on Monday, in charge of Mr. Allen, of the *Black Eagle*.

Private correspondence from the squadron, dated Tuesday, eight A.M. off Shields, says:—

"We have just hove-to off this place, and the steamers have cast off for the purpose of going into Shields for coal. So far we have come along gloriously; the weather is beautiful, with a fair wind from the south-east. We shall proceed on towards Buchaness, where the steamers are to meet us, and again tow, if necessary." Another correspondent writes—"We have done pretty well, and anchored off Orfordness on Saturday night; and, starting next day, we have been sailing and steaming ever since. This will go by the *Dasher* steam vessel, which is going in to coal at Shields. The *Resolute* answers very well, and will prove a handy ship, much more so than the *Enterprise*. It is reported that we call into Stromness; if so you will perhaps hear of us thence.

The transport *Emma Eugenia*, with stores for the expedition, and being towed to Cape Farewell by her Majesty's steam tender *Lightning*, was at Peterhead on Monday.

The arrival of the *Lightning* steam tender at Woolwich, has brought intelligence from Capt. Austin's squadron. All the letters are dated the 15th inst., "at sea." The squadron left Stromness on the 15th. At 11h. 50m. A.M. the *Resolute*, in tow of the *Dasher*; and the *Assistance*, in tow of the *Lightning*; which vessel did her work well, and was a capital exchange for the *African*. The *Intrepid* and *Pioneer*, dropped down to Long Hope from Stromness the previous morning, having completed their water and coals there. The *Assistance* completed her water at Long Hope, and took on board about a ton of canal coal for the use of the stoves. It was part of the cargo of a vessel lately wrecked on the islands. The *Intrepid* beat the *Pioneer* in steaming. At 3 P.M. *Intrepid* stopped her engine, and at 8 P.M. *Pioneer* had the *Intrepid* in tow, and was proceeding. The *Lightning* towed the *Assistance* twenty miles to the westward of the Pentland Frith, where she left the expedition all well, and the respective crews in good spirits. The last accounts from the squadron are by the *Dasher*, which vessel arrived on the 16th at Scrabstone Roads, Caithness, having seen the ships clear of the Pentland Frith, and parted company on the 15th at 8 P.M. They had then a fine breeze from W.S.W.

Four boats have been built by Mr. White of Cowes, for Capt. Austin's ship. They are beautifully formed (something between a whale and a paddle-box boat,) built as life-boats, with hollow and water-tight sides from the gun-wale to the upper ends of the fore timbers. They are carvel built outside, with a diagonal frame inside. Two of these boats are 30 feet each, fitted to pull ten double-banked oars; the other two are 27 feet boats, fitted for eight double-banked oars. They are all sharp at both ends, and have a spring like whale boats, and are fitted like whale boats, with a strong upright bit for towing or veering line, in the operation of taking whales. Around the gunwale outside battens are fitted for men to hold on to, in case of their being thrown out of the boat, and also along the bilge of each boat battens are also fitted for men to hold on to, in case of the boats being capsized. The air-trunks on each side these boats are fitted in a similar way to those fitted in life boats.

---

### Sir John Ross's Expedition.

The *Felix*, built by Messrs. Sloan and Gemmell, at Ayr, for Sir John Ross, is about 100 tons burden, and has more the appearance of a yacht than a vessel intended for the difficult and dangerous service for which she is destined. She appears, however to be fitted with all the appliances science could suggest, or money procure, to enable her to combat the dangers of those inclement regions, being as strong as wood and iron can make her, having been stayed with beams going across the interior of the vessel wherever they can be applied with advantage. The bow is a perfect mass of timber, and the planking is double. She is also surrounded with a sheathing of patent galvanised iron, extending two feet below her load watermark.

The *Felix*, with her tender, went to sea from Lochryan between 10 and 11 o'clock on the 23rd towed out of the Loch by one of the Stranraer steamers in a sad state of disorder, from the continued drunkenness of the crew during the whole of the time the vessel was in the Loch. The sailing master had drank himself into a state of insanity, *delirium tremens*, and was in his bed; the mate was little better, perhaps worse, for he was furious with drink; and the whole of the crew were much in the same state, and positively refused to weigh the anchor or make sail on the vessel. This had to be done by the crew of the steamer, and some parties from Stranraer, who wished to accompany Sir John out of Lochryan. On reaching the anchorage off Cairnryan, five miles down the Loch, the men insisted upon anchoring, and force had to be used to prevent them doing so. This gallant old officer, however, is a man of firm nerve, and, with Commander Phillips, showed equal coolness and determination under those difficult circumstances. He had full confidence in his management of the crew once the vessel was fairly clear of Lochryan. We believe—at least, so our correspondent says—that Mr. Abernethy, the master, and several of the crew repented the engagement they had entered upon, and would have detained the vessel had it been in their power. They were particularly anxious to know what security they were to have for their wages when they returned; but this was a point upon which Sir John could give them no satisfaction. It would not much surprise us to hear that this voyage was not prosecuted. The special licences from the Board of Customs had not arrived from London before the sailing of the vessel. She is, therefore, liable to be detained; but there is no chance of such an occurrence.—*Shipping Gazette.*

---

We find the following account of the *Grinnel* expedition in search of Sir John Franklin, in the *New York Herald*.

The vessels fitted for the expedition, are named the *Advance* and *Rescue*, being hermophradite brigs, of a tonnage of 144 and 91 tons respectively. In their build, fittings, and capabilities, they seem in every way suited for the dangerous service in which they will engage. Each vessel is strengthened inside with a complete set of hanging knees under every beam. They are built with an extra set of strong beams, running athwart the whole length of each vessel, firmly fastened with heavy clamps. The object of this is, to enable them better to resist the lateral pressure to which, they will probably be exposed by the ice, and obviate the danger of the sides being forced in. Forward, the ships are solid from kelson to deck; and there are strong shores diverging in every direction from the Samson posts against the sides of the vessels. This provision will be an additional source of strength, should the hulls of the ships get entangled in masses of floating ice. Each ship is double decked, felt being firmly packed between each, the whole of the under deck being lined air-tight with cork. The felt packing is an important provision to prevent the intense cold penetrating between decks, and the cork lining is intended to prevent the moisture from condensing. The hull of each vessel is double; the outside sheathing consisting of two and a half inch oak plank; the second sheathing, from her bows, fore and aft, abaft the main rigging, being of oak also. Forward, the bows are protected with numerous strips of thick sheet iron, to prevent the ice cutting into the hull. The rudders also are so constructed, that they can be shipped or unshipped in the course of three minutes. In the construction of these vessels, nothing seems forgotten that would tend to insure greater strength, or conduce to the comfort and safety of the heroic men, who have volunteered their services for this praiseworthy yet perilous undertaking. Each ship is provided with several stoves, a large one being placed in each hold. A machine for melting

snow, a blacksmith's forge, ice saws, ice anchors, and every other necessary implement for an Arctic voyage, are included in the fittings.

The brigantines are furnished with two complete sets of sails, cordage, &c., and are provisioned for three years. Weapons of "offence and defence" have, of course, not been omitted, there being an ample supply of swivels, guns, sabres, revolvers, &c. We must add, that each ship is supplied with an ordinary compass, and a patent double-needle compass, the latter being said to be freer from vacillation than the ordinary instrument. Each vessel is also furnished with two strong boats.

To the officers and men, who have nobly volunteered in this service, perhaps at great peril of their lives, with a certainty of having to endure many hardships and privations, it is impossible that two much praise can be due. Aware that anything we can say, would only evince our inability to express the degree of our admiration, we forbear, feeling assured that the consciousness of the honourable motives, that have actuated them to make the sacrifice, will be their best reward. They will go, accompanied by the esteem, and good wishes of the whole body of their fellow-countrymen. The capabilities and experience of the officers in command of the expedition, assisted by able and energetic crews, are the best earnest of probable success. Lieut-Com. E. J. De Haven, some of our readers may possibly be aware, was engaged in Wilkes's expedition in 1843; and both by his talents and experience, is eminently fitted for the command he holds.

The following is a complete list of the officers of the expedition—*Advance*, Lieut.-Com. E. J. De Haven, Philadelphia, commander of the expedition; Acting Master W. H. Murdaugh, Norfolk; Midshipman, William S. Lovell, New York; Dr. — Kane. *Rescue*: Master Com., Passed Midshipman, S. P. Griffin, Savanah; Acting Master, R. R. Carter, Virginia; Dr. — Vreeland, New York; Mipshipman, — Brooks. The crew of the *Advance* consists of fifteen men; the *Rescue* having a crew of thirteen men. The vessels are lying at the Brooklyn navy yard, and all who feel an interest in the subject we would advise to go and see them.

As respects the route to be pursued by the vessels of the exploring expedition, we understand that the instructions received by Lieut.-Com. E. J De Haven from the U. S. Navy Department, are to the following effect:—

"That on leaving New York, he shall make the best of his way to Lancaster Sound. Having passed Barrow Strait safely, he will proceed northward to Wellington Channel, and westward to Cape Walker; after which, the state of the ice, and other circumstances, will influence him in deciding the course he will pursue. Supposing he should be unable to proceed through Barrow Strait, he would then sail to Jones' Sound and Smith's Sound. Finding these closed or impracticable, and not having succeeded in getting a clue to the lost expedition, it is presumed the season would be too far advanced to make an attempt in any fresh direction, and the vessels are instructed to return to New York. Under any circumstances, Lieut.-Commander De Haven is strongly urged not to remain more than one winter in the ice."

The general directions are that the search should be solely confined to those portions of the Arctic regions that have been as yet unexplored. For the safety of the expedition, it is advised that a place of rendezvous be always appointed, so that in the case of a separation, they might be enabled more easily to meet. The expedition is furnished with a large supply of books, and a number of charts, &c., forwarded by Lady Franklin, together with a form of prayer appointed to be used in Ross's expedition. We are informed that Mr. Grinnell has received a most interesting autograph letter from Lady Franklin, in which she expresses her gratitude to him for his disinterested exertions in search of her lost husband. In the same packet, she has enclosed a letter to Sir John Franklin, to be handed to him in the event of his being found. It is

Mr. Grinnell's intention, we understand, to proceed two or three hundred miles to sea with the expedition, returning in the pilot boat. In concluding our notice of this noble enterprise, we would only express the hope that so many laudable exertions may not go unrewarded.

---

## Collisions of Merchant Shipping.

*From the Shipping Gazette.*

93. *Falmouth, April 9th.*—Put in the barque *Hope*, Mordell, from Newcastle for Panama, with loss of bowsprit, and cutwater damaged, having been in contact on the night of the 7th, about ten miles south of the Longships, with the Greek brig *Parnasso*, Cuzzelli, arrived here for orders, which sustained in the collision considerable damage to starboard fore-rigging; and and some three or four planks of her side, above the bends stove, lost sails, &c. Immediately after the accident the crew threw overboard from thirty to forty tons of her cargo, consisting of wheat.—*April 10th.*

94. *Scarborough, April 14th.*—The *Aurora*, Keding, of and from Barth for London, was in contact with a Norwegian schooner, on the 8th April, in lat. 54° N., long. E., when a seaman of the *Aurora* got on board the Norwegian, and has since been landed here by a coble.—*April 11th.*

95. *Hartlepool, April 10th.*—Put in and put back—The *Henry* and *Jane*, Price. *Mary Ann*, Osborne. *Bee*, Little. *Nancy*, Dobson. Bristol, Merritt; the master of the lastnamed reports, that yesterday, at 2h. 30m. A.M., when off Scarborough, he was run on board of by a light brig, name unknown, which carried away his jibboom, bowsprit, foretopmast stay, and did other considerable damage.—*April 11th*

96. *Glasgow, April 10th.*—Referring to the "Maritime Extracts" in the *Shipping and Mercantile Gazette* of 9th inst. viz., from Ayr, dated 6th, and from Greenock, dated 5th inst.. relative to the collision which took place with the schooner *Mavis*, of Wexford, now at Ayr, repairing; and the ship *Brooksby*, of Glasgow, to repair her damage; it turns out, by comparison of the time of occurrence, and other circumstances which have come to our knowledge, that the above two vessels were in contact with each other.—*April 11th.*

97. *Shields, April 11th.*—The *Countess of Westmoreland*, Dennison, from hence for London, has put back here with loss of bowsprit, and cap, having been in collision with the *Westmoreland*, also from hence for London, off Seaham, on Tuesday, morning, at 1h. A.M.—*April 12th.*

98. *Queenstown, April 12th.*—Put in—The *Rafael*, from Liverpool to Vera Cruz, with loss of head, cutwater, and other damage; had been in collision with a vessel off Tuskar Light on the morning of the 6th, at 1 o'clock.—*April 12th.*

99. *Newry, April 13th.*—As the schooners *Erin*, of Liverpool, and *Maria* and *Fanny*, of Newry, were beating over Carlingford bar 11th inst., wind east; the *Maria* and *Fanny* standing to the north, and the *Erin* to the south; the master of the *Erin* put his helm to starboard, and struck the *Maria* and *Fanny* on the starboard quarter, carrying away main rigging, split mainsail and covering plank. The Erin lost bowsprit and foreyard, and received other damage.

100. *Yarmouth, Norfolk, April 15.*—The *Aurora*, Keding, from Rostock for London, was assisted in here last evening with bows stove, and loss of

bowsprit, topmast, and some sails, after being in contact off the Wall Bank. —*April* 16*th.*

101 *Plymouth*, *April* 15*th.*—Put in the *Harbinger*, Sampson, from Havre for New York, with damage to her bends, having been in contact off the Eddystone. Last night during a heavy squall, the *Tory* fell athwart the *Ramalies* when both received damage.—*April* 16*th.*

102 *Liverpool.*—The *John Woodall*, for Cape of Good Hope, has put back with damage to her bowsprit, having been in contact.—*April* 16*th*

103. *Ramsgate*, *April* 16*th.*—The *Robert Stephenson*, Clark, from Newcastle for Genoa, with loss of bowsprit, &c., having been run foul of while at anchor in the Downs, by the *Sea Lion*, American ship, from Antwerp for New Orleans.—*April* 17*th.*

104. *Liverpool*, *April* 19*th.*—The schooner *Lord Adolphus*, Cant, from Inverness, at Liverpool, on Wednesday night, off the Ormshead, got in contact with an outward-bound barque, and carried away her mainmast, fore-topmast, stove stern, &c.

---

### Adelaide Memorial Fund.

The anticipated meeting of the friends and promoters, of this truly national and important charity, took place on the 12th inst., at 32 Sackville Street, Piccadilly, Admiral Sir Charles Adam, K.C.B., governor of Greenwich Hospital, in the chair. The proceedings were opened by the Rector of St. James, the Rev. Mr. Jackson, with prayer, after which the venerable and benevolent chairman, introduced with a truly patriarchal grace, the object for which the meeting had been convened.

In giving a brief outline of the circumstances, on which the design of the intended Memorial Fund had arisen, he read with much feeling and effect, the letter of the "Sailor's Widow without Daughters," which has already appeared in the *Nautical Magazine*, the *Naval and Military Gazette*, the *Penzance Journal*, and other periodicals, and in passing a just eulogium on the composition, remarked that a friend of his, a military officer of high rank, had expressed a hope that, if the lady were "without daughters," she was not "without sons," thus gracefully implying the advantages moral and mental, to be the expected heritage of such a maternity.

The perusal of this letter, was followed by that of the resolutions decided on by the Ladies' Provisional Committee, which formed the basis of the Proposed Monumental Charity;—the design of this Charity being the perpetuation of the memory of Queen Adelaide, by raising up in the name of that excellent and lamented princess, a fund for the relief of the destitute orphans of that service, to which her warmest sympathies had been given, as the wife of a Sailor King.

The first resolution in connection with the present meeting, was moved by Arch-Deacon Robinson, in a speech as remarkable for its classic elegance, as for its genuine feeling. It would not be possible to do justice to this composition in a brief report; a few only of the leading ideas can be presented to the reader, but these will be evidence of the spirit which animated the reverend and accomplished advocate of the British Female Orphan.

He began by observing, "that, this noble charity commended itself to the hearts of all bearing the name of Englishmen. The fathers of such orphans,

were the defenders of all, nay, the battles fought by British seamen, in the protracted struggles of this country for her national existence, had not only achieved this object, but had promoted the freedom of the world. The christian matron, who had brought this object before the public, had performed a great duty, and it is ours to accomplish this object in an appropriate spirit.

"The fears of British officers for the provision of their helpless and dependent families, ought not to be permitted to weigh upon their minds in the hour of conflict. They should be enabled to confide their children to God, and by what instrumentality does God act? by the benevolence of a country. The question may have arisen in some minds, is there a necessity for such an institution? he would say there was. He instanced the two cases mentioned in the letter of the Sailor's Widow, and he would beg them to remember, that these were but two of many others that might have been quoted.

"Imagine the feelings of the widowed mother, obliged in her necessity to discharge her only servant, and to make menials of those daughters, whose birth entitled them to the same station in society in which their parents had moved, and to an education, which would fit them for such a position, and for respectability and usefulness in life. This fund would send aid at once to such a mother, would afford her time to educate them herself if she were qualified for that office, or to avail herself of schools in her own neighbourhood, or to send them to the Royal Naval School at Richmond, the character of which was so well established.

"To assist emigration was one of the purposes contemplated. This he considered a most essential suggestion; there could be no better omen for the colonies, than the infusion of the noble and chivalrous blood of British naval officers, amongst those distant communities. Those young persons educated amongst us, would carry an ardent love of our institution, into those remote regions, and would retain the sincerest regard to the mother country. But how were funds to be provided? He would state a case. He knew of three orphan daughters of a British officer, who were offered a free passage to Australia, but they were unable to accept it for want of the requisite clothing; ultimately they were indebted for this to the Emigration Society.

"We proposed to inscribe this institution with the name of a lamented Princess. There could be no better mode of paying respect to her memory, than that which we knew accorded with her character while on earth, and which, if she were permitted to look down on our proceedings, must be believed to be in unison with her now sainted spirit. But in a work of charity of this nature we took higher ground, and trod in higher footsteps than those of any princess or earthly sovereign, even in the steps of Him who went about doing good, and who Himself soothed the sorrows of the widow, by raising her dead son to life."

The venerable chairman in putting the resolution viz., That it is expedient to found a charity in the name of the lamented Queen Adelaide, in order at once to perpetuate her memory amongst us, and to supply in some measure the place of her beneficence, paid a just tribute to the eloquence with which it had been proposed: the manner in which he did this, will not be forgotten by those who were present.

The second resolution was moved by Capt. Dickinson, R.N., of Greenwich Hospital, viz., "That a society be now formed to carry these designs into effect." A list of vice-patrons was then read, displaying an array of distinguished names, that encouraged in the highest degree, the hope of ultimate success in the establishment of this memorial.

Capt. the Hon. Francis Maude, R.N., proposed the third resolution, to the effect that, aid would be given by this institution, to orphans seeking the education of the Royal Naval School at Richmond.

Capt. Maude on introducing the resolution adverted with much gentlemanly feeling, to the difficulties and anxieties, which the proposer of this memorial, had to encounter in proceeding so far with her noble work. No one could imagine how great those anxieties were; they could only have been surmounted by a great exertion of energy. He thought the meeting were under considerable obligations to her, for having brought them together. This proceeding would soon be matter of history, it was so indeed already, and the name of Sir Charles Adam, would be most honourably associated with such history. In reference to that part of the resolution, which mentioned the introduction of Adelaide Scholars into the Royal Naval School at Richmond, he begged to correct an erroneous impression, with regard to the effect of this part of the plan on the funds of that school. These funds would be in no way affected by such a measure, simply because, by the regulations of that school, no child could enter it for whom £12 a year could not be paid. The friends of orphans were frequently unable to raise that sum; in such cases the Adelaide Memorial Fund would supply the whole means, or be auxiliary to their efforts. He considered that there was an imperative necessity for such an auxiliary fund. The distress in the families of naval officers, was often great beyond conception. Cases had been mentioned, in which the children of such officers, had been indulged with animal food but once a year. A lieutenant had got half pay, how could he supply the necessary education to his children, yet he was expected to preserve the appearances of a gentleman.

The fourth resolution was moved by the Rev. J. C. Goldney, Chaplain of Greenwich Hospital, "That Admiral Sir Charles Adam, the Right Hon. Lord John Hay, and Arch-Deacon Robinson, be trustees of the charity." It was seconded by Capt. Sweeny, R.N., briefly but with much feeling. The cause was altogether so excellent, the claims of the orphans so powerful and affecting, and the selection of the trustees so entirely satisfactory, that he was sure the resolution would be carried unanimously. Arch-Deacon Robinson here rose, and most gracefully thanked the meeting, for having distinguished him in so gratifying a manner, as to elect him a trustee. Mr. Thomas Lewin, late of the Hon. E. I. Co. Judicial Service, remarked in the commencement of his address, that the advertisement, which convened this meeting, had with great propriety called it a *national object*. He with much eloquence appealed to the *whole nation* as properly, and justly contributors to the support and succour of those whose fathers were the protectors of all. Much and severe distress was borne in secret, in the modesty of retirement, by the widows and orphans of naval officers. They united the sense of genteel birth, with the pain of straitened circumstances; no one could imagine what was endured by this class of sufferers. He would advert for a moment to fundamental laws, he thought they should undergo great consideration, lest the Society should fetter its own usefulness.

Sir John Heron Maxwell spoke earnestly and with much liveliness of manner, in praise of the proposed memorial. He introduced and applied an anecdote of Her Gracious Majesty, with excellent point and effect. Some time since the Queen being at Greenwich, remarked that there seemed little occasion to build for her any more palaces, while the noble one of Greenwich Hospital was in existence. It being intimated to her Majesty, that she might if she pleased take possession of it for her own use. Her immediate answer was, "Oh no! I will never deprive the veteran seamen of my country

of their royal home. If said Sir John, we lodge our seamen after their long and arduous services, in palaces, we should surely supply an asylum to the helpless female orphans of British officers.

Admiral Harcourt in a manly and impressive speech, brought forward the last resolution; to the effect that this meeting looks to God, and earnestly seeks the divine blessing on this effort.

To whom should we look said this pious and veteran officer, "but to God," to God alone in whose hands are the hearts of all men: he only could impart the spirit which would insure success. The ladies who had commenced this undertaking would constantly need to recognize, and act on this principle. The young persons whom we proposed to educate through its assistance, should be carefully instructed in the scripture truth which teaches it; for it would be to no better purpose to remove temporal distress, and leave them in spiritual destitution and exposed to everlasting misery.

The resolution was ably seconded by the Rev. Mr. Hailes of Richmond. He said he had the satisfaction to be Honorary Clerical Visitor and Instructor, in the Royal Naval Female School at Richmond, ever since the establishment of that interesting institution. He dwelt on the great importance of scripture instruction, and gave high praise to the system of instruction pursued in the Richmond School, which he thought would bear comparison with any in the kingdom: he trusted the two institutions would eventually work well together: he wished to see the school enlarged to receive 200 scholars, instead of being able as now to accommodate but eighty.

The chairman at the close of Mr. Hailes' address, expressed his earnest desire and determination to give every aid in his power to this excellent design. His bearing throughout was in beautiful accordance with this declaration; the benevolent tones of his voice, and the unostentatious cordiality of his manner, shewed the heartfelt interest with which he regarded it. A vote of thanks was moved, and on no occasion could it have been offered with more sincerity, or more entirely deserved. Thus the inaugural meeting of this most interesting national charity has been accomplished, attended by many most encouraging omens, and will be followed it may be trusted by the blessing of Him, who commands us to visit the fatherless and widows in their affliction; a duty which the lamented Queen Adelaide efficiently performed through the instrumentality of her beneficence; while she at the same time according to the uniform testimony of qualified observers, "kept herself unspotted from the world."

---

## Lecture on Popular Songs.

The following is an extract from Mr. Lohr's Lecture at Manchester on Popular Songs.

"Rule Britannia" was composed by Dr. Arne, and introduced into his Masque of Alfred. This masque was written by James Thomson and David Mallet, and performed in 1740. The words of "Rule Britannia" were written by Thomson. Mr. Lohr concluded with the following observations on "God save the Queen"—"The simplicity and grandeur of 'God save the Queen' is too universally admitted to require comment, and its adoption, in Russia, Saxony, Weimar, Brunswick, and Hanover, as their National Anthem, proves that its admiration is not confined to England. The German 'God save the King' begins—'Heil dir in seierg Krang,' and is sung to

our tune. The Austrians sing Haydn's hymn, 'Got erhalte Frang den Kaiser,' but, 'with all its melody and sweetness, the Austrian hymn has too much of the psalm in it; it wants the manly, majestic, full-hearted boldness of the strains in which we are accustomed to express not more our respect for our Monarch than our own national pride.' Much research has been bestowed in the endeavour to ascertain its origin, and to collect all that has been said would fill volumes. I shall confine my remarks briefly to five of the favourite theories which have obtained more or less credence as they have appeared to be supported by proof.

"1st. It is said to have been composed by Mr. John Bull in 1607; but this composition, which was published by Dr. Kitchener, from the original manuscript in his possession, was found to be nothing more than a ground for the organ on four notes, C G F E, with twenty-six different bases, and bearing not the most distant resemblance to the air in question.

"2nd. The Duchess of Perth has stated in her Memoirs, that the said anthem is of French origin, and was first sung by the nuns of St. Cyr to James II; and that Handel procured a copy of it when in France, and then passed it on to George I, and the English nation as his own composition. The Duchess has also given a verse of the anthem to confirm her account. But the works of Handel were much better known in England than in France, and not one syllable can be found throughout his life or writings about his claiming to be the author or composer of 'God save the King.' On the contrary, his own musical amanuensis, John Christopher Smith, commonly called Handel Smith, is the very individual who, in a letter to Dr. Heminton, declares that Harry Carey was both the author and composer. The verse her Grace has given is also at variance with her statement, for the verses or stanzas of our national anthem have each seven lines,—the one given in French has ten lines; and it is absolutely impossible to adapt all the syllables in those ten lines to the notes of 'God save the King,' unless we add six bars to the last strain.

"3rd. Mr. Pinkerton, in his 'Recollections of Paris,' vol. ii., says, that 'the supposed national air is a mere transcript of a Scottish anthem,' in a collection printed in 1682. In this bold assertion he no doubt alludes to a work which excited some interest a few years ago from this imagined discovery—'Cantus; Songs and Fancies to several musical parts, &c., as taught in the Music School of Aberdeen,' printed by John Forbes, in Aberdeen.' Mr. Cross, in his account of the Yorkshire Musical Festival, informs us that a copy of this work was sold by auction, by Evans, in February, 1819, for £11, on the supposition of its containing the original of 'God save the King!" This singular publication, commonly called Forbes' Cantus, is an odd voice part of some old English glees, Christmas carols, &c.; and yet, in its imperfect state, it went through three editions, viz:—in 1662, 1666, and 1682; moreover this, the only known publication of music in Scotland during the whole of the seventeenth century, is now universally admitted not to contain a single Scottish air, The tune in question, 'Remember, O thou man,' is a Christmas carol, taken from Ravenscroft's Melismata, printed in London in 1611.

"4th A writer in the Gentleman's Magazine for March, 1796, page 208, says, 'The original tune of God save the King—the tune, at least, which evidently furnished the subject of it—is to be found in a book of harpsichord lessons, published by Purcell's widow, in Dean's yard, Westminster;' but it is certain that 'God save the King' has never yet been discovered in Purcell's works, or with his name attached to it in any manner whatever. It now only remains to make a few remarks npon Henry Carey's claim to the

authorship. Carey, who was a Jacobite, in common with all who fixed their hopes on James, is said to have written it on the eve of the contest with the Pretender in 1715, at which time he was upwards of fifty years of age, and, according to his constant practice, set his own music to his own words. But the hopes of the Jacobites were defeated, and the song laid by forgotten till 1740. It has been proved that the author sang it publicly, and with the greatest success, at a dinner given to celebrate the victory of Admiral Vernon, 1740, and on this occasion Carey himself applied the song to George, in consequence of the recent splendid victory—

"Send him victorious,
Happy and glorious,
*Long* to reign *over us.*"

The original words were applied to James, *soon* to reign over us. Carey himself applied the words to George, altering *soon* to *long*. Thus applied, it then became popular beyond conception. By Dr. Pepeesch it was altered in the melody of the first bar, and immediately afterwards, with a perfect bass, introduced on the stage, and it has been constantly and enthusiastically sung to the same words, which it has retained from 1740 till the death of the last George."

---

## Steam between Galway and New York.

The old Anglo-Norman town, which, by the trial trip of the *Viceroy* to New York, takes the first step to establish a claim for itself, as a great European terminus of transatlantic intercourse, is thus honourably mentioned by Peter Heylin in his Cosmography:—"Galloway, a noted emporie, and lately of so great fame with foreign merchants, that an outlandish merchant, meeting with an Irishman, demanded in what part of Galloway, Ireland stood; as if Galloway had been the name of the island, and Ireland only the name of some town." Other old writers refer to the political and commercial importance of Galway, in terms equally flattering; and there are ample authorities to show, that for a long period it was second to no town in Ireland, the metropolis excepted, in a commercial point of view. It was, in fact, one of the earliest and most successful efforts of English colonisation in Ireland, and for centuries remained a stronghold of English power, and an example of English enterprise and prosperity in the midst of a hostile and desolated country. Galway, therefore, may be said to have a special claim on the interests of Englishmen; and at the present moment, when it is making an effort to start once more into note, a few particulars of its history and local peculiarities may not be uninteresting.

It would appear that Galway was a place of some consequence previous to the English invasion, and that it was the centre of whatever commerce existed on the western coast of Ireland at the period. Its position, nearly due west from Dublin, and at the head of a bay running deeper inland than any other arm of the sea, on that coast, renders it by nature one of the termini of the great central line of division which, according to the old chroniclers, separated the northern half of Ireland from the southern. And in 1230, when Richard de Burgo, the Lord Justice, appeared before Galway to demand its surrender to Felim O'Connor, whom he was commissioned to establish on the throne of Connaught, he found a strong castle there, built by the O'Flaherties, lords of West Connaught, and sufficiently fortified to hold out successfully against him. It does not appear that the English succeeded in entering Galway until two years afterwards, when Richard de Burgo caused a strong castle to be erected there, and for a considerable time it became one of the chief seats of the De Burgo family. The O'Flaherties were expelled, and driven still farther to the

west. That powerful sect had previously occupied a large territory to the east of Lake Corrib; but from that they were early forced to retire before the encroaching invasion of the De Burgos, and others of the Anglo-Norman adventurers; and now that Galway, after having become the eastern instead of their western frontier, was altogether wrested from them, they retired to the district called the Land of the two Lakes, lying between Lake Corrib on the north, and Galway Bay, anciently called Lake Lurgan, on the south, and better known by its name Iar-Connaught, or Western Connaught. Here, and in the adjoining but still remoter territory of Conamara, the O'Flaherties lived for centuries in a state almost entirely independent of British authority, to which they were often able to oppose a very formidable resistance; and those wide and wild domains remained in their undisturbed possession until transferred to other owners in the confiscations of the seventeenth century.

Soon after the occupation of Galway by the English, the value of the place as a strong position was the first consideration that suggested itself, and walls were constructed to defend the town against the O'Connors and O'Flaherties; but the place being thus rendered one of safety, commerce at once took root there, and increased with amazing rapidity, so that it became in little more than a century not only the chief emporium of the west of Ireland, but, as we have already mentioned, a town of almost the first commercial importance in the whole island. The inhabitants devoted their whole attention to commerce, and this soon became monopolized by some thirteen or fourteen families, who were all Anglo-Norman, with the exception of two or three of Irish extraction, and who, banding themselves together for every purpose, excluded all others, whether English or Irish, as strangers. These are the families which have been since known as the "tribes of Galway," and which have continued as a distinct race in the west of Ireland to the present day. Their names are Athy, Blake, Bodkin, Browne, Darcy, Deane, Flout, Ffrench, Joyce, Kirwan, Lynch, Martin, Morris, and Skerratt.

The trade of Galway was chiefly carried on with Spain, and its ships might ever be found in the ports of Biscay and Gallicia. From this constant intercourse with that country civilization in Galway assumed, in process of time, almost as much of a Spanish as an English character. The people dressed like the Spaniards, built their houses after a Spanish fashion, and there were few of the merchants a portion of whose education had not been obtained in Spain. From these circumstances, combined perhaps with the old Milesian traditions of the country, it has happened that Galway has so generally been looked upon as a half Spanish town, although we are not aware that a single family there trace its origin to Spain, within the historic limits to which we now refer. Galway is purely and essentially Anglo-Norman.

None were so faithful to the English interests in Ireland as the tribes of Galway. The De Burgos, who were looked upon by them with jealousy from the beginning, soon became much too unsteady in their loyalty to please the men of Galway; and they, as well as some other Anglo-Norman families, were as rigidly excluded from the town and its privileges as the "wild Irish" themselves. And they carried this spirit of exclusion to such an extent, even so late as 1518, that in that year it was enacted in the bye-laws of the corporation, "that no man of this town shall oste or receive into their housses at Christmas, Easter, nor no feaste elles, any of the Burkes, M'Williams, Kellies, nor no cepte elles, without license of the mayor and councill, on payn to forfeit 5*l.*; that neither O ne Mac shall strutte neswaggere thro' the streets of Gallway." It is added by the historian that after this law the good people of Galway became more thrifty, so that instead of requiring any legal restrictions on their hospitality, a *spur* to stimulate it became necessary, and it was regulated that whenever a stranger found himself uninvited to dinner he might appear in the streets in his boots and *spurs*, which generally secured him an invitation. "But even this pleasant expedient," continues Mr. Hardiman, the historian, who relates the circumstance, "is now of no avail, so far have we departed from the good old customs of former times."

As to the O'Flaherties, the rule of exclusion enforced against them was the

most rigid of all. If by any chance, one of the name had business to transact within the walls of the town, an insulting inscription met his eye as he entered the West Gate, the spikes of which were often graced with the heads of his namesakes, and he was obliged to quit the walls again before night fell. "From the ferocious O'Flaherties, O Lord deliver us!" was one of the prayers of the Galwagians.

When the commerce of Galway was at its zenith, the inhabitants had scarcely a foot of land outside their walls, which they could securely consider their own; but in the course of time, they came to purchase estates from such of the Irish families as had any to dispose of, and acquired a great deal more by confiscation. They built castles, and at length for their castles, deserted their ships. Gradually the name of Galway lost its celebrity in foreign ports, and Limerick, Cork, and Waterford, eclipsed its fame. Still the Galway merchants continued wealthy, and made up by territorial possessions, for the loss of treasures gathered from beyond sea.

But the fatal period for the prosperity of their town, was the epoch of the change of religion, and the civil broils which ensued thereon. Partly, perhaps, owing to the Spanish feeling engrafted on their character, the tribes of Galway clung, for a long time, with more fidelity to the old faith than did many of the other families of Ireland of the same descent; and when popery and disloyalty were synonymous, they came in for their share of punishment for both. The spirit of commerce was paralysed under the religious persecutions carried on in Ireland in the reign of Elizabeth, but it was utterly annihilated during the civil wars of the commonwealth. Siege followed siege. Even when both were ostensibly marshalled under the same banners, the puritanical soldiers in the fort of Galway galled and annoyed the loyalist inhabitants of the town; and to the horrors of the civil war were added those of famine and pestilence. The scenes of the Cromwellian era were re-enacted in the civil war of William and James; and from this time forth Galway never raised its head again.

After this period the inhabitants of Galway were solely occupied with petty dissensions among themselves; the tribes seeking to assert their ancient privileges against the numerous influx of "strangers"; and, until very recently they continued to do so most successfully, although they had themselves degenerated into a state of most beggarly indigence and apathy, the princely castles of their merchant ancestors having become roofless ruins about their ears, and, their streets and quays being converted into little better than quagmires. Thus it is that Galway has, for many generations past, played in Irish politics, a *role* so despicable and so unworthy of its ancient state, so suggestive, and so fertile in historic interest.

The following passage from one of Mr. Hardiman's additional notes to O'Flaherty's "Tribes of West Connaught," will show how the lands of that district were disposed of: "In the 17th century" says Mr. Hardiman, "the entire territory of Iar-Connaught was confiscated, and such of the O'Flaherties as survived war and famine were thrown landless on the world. The country was parcelled out, and after the Restoration was granted to several patentees. The principal of these were, the Earl of Clanricarde; Richard Martin, of Dangan; John Brown, ancestor of the Marquis of Sligo; the Archbishop of Tuam, in trust for the See; Dr. Seele, Provost of Trinity College, Dublin, in trust for the college; Sir Thomas Meredith, one of Cromwell's privy council in Ireland; Sir George Bingham, of Castlebar; Colonel John Whaley, one of the 49 officers; Edward Geoghegan, a 'transplanter'; several descendants of the wealthy burghers of Galway, and others."

If the hopes now entertained for Galway be realised, its history will form an exception to that of fallen commercial cities in general. Places like individuals seem to get their chance of success but once, and forfeited opportunities seldom return. Dead enterprise rarely revives, however long its ghost may hover round the scene of its action. The chance of revival for Galway, admitting this theory of fatality, seems all the more probable from the fact that its agents are not to be of the old race of its inhabitants. The tribes of Galway, whatever

historic credit they may claim, are crushed for ever, and if their town is to rise from its ashes, other hands than theirs must do the work. "Strangers," whether of English or Irish descent, will be the labourers of its future enterprise, and are already in the field.

Galway is already possessed of some excellent new wet docks, constructed at an enormous expense, and which, notwithstanding the mistakes made in the original plan, may be rendered highly serviceable. Its resources for the construction of wharfs and stores are immense; the junction of the island on which the lighthouse stands with the mainland by a pier, for the formation of which there are abundance of facilities, would give one of the finest harbours in the empire; the drainage of Lake Corrib, and the connexion of it with the port by a short navigable canal, will open up inland a vast field for enterprize; the re-distribution of the surrounding country among fresh hands through the medium of the Encumbered Estates Commission; the establishment of the Queen's College as a nucleus of intellectual activity; the construction of the railway, placing the town within a few hours' distance of the metropolis; and, finally, the chance now offered for constituting the port the extreme western station of Europe for communication with America—all these circumstances, already existing, or in a fair way of being speedily realised, throw open to Galway, to all appearance, a new career of prosperity and happiness.—*Daily News.*

---

## Wreck of the Orion.

The *Orion*, steamer, on her passage from Liverpool to Glasgow, with 150 passengers on board, was wrecked on a sunken rock, off Portpatrick, between one and two A.M. on Tuesday last, and almost immediately went down. The number lost is not known at present, as the accounts vary from fifty to one hundred. The passengers and crew rushed to the boats, two of which, it is stated, at once capsized, owing to the number that crowded into them, and almost all perished. To attempt to account for the loss of this noble vessel on a fine night, on our own shores, within a short distance of the land, where every stone should be familiarly known to those in charge, is at present impossible. The rock on which the *Orion* struck is some distance from the shore, and passed through the vessel principally in her midship compartment, breaking the engines to pieces, and within less than ten minutes from the time she struck, the *Orion* was at the bottom.

From the accounts that could be gleaned from those saved, it would appear that it was exactly a quarter to two, when the vessel struck, not at stem on, but rather towards the bilge; and almost immediately after, she sunk gradually by the head; and before any of the cabin passengers had time to dress, the water was up to their knees in the cabin. The first boat that was launched, was so crowded with the panic-struck passengers, that she instantly sunk, and almost all on board perished. In the second boat, a number of ladies were put, and they reached the shore in safety. In the meantime, the vessel gradually filled with water, and the crew and passengers were left floating on the surface of the calm waters. As soon as the accident was discovered from the shore, a number of boats put off, and picked up all that could be seen floating on the loose portions of the wreck, or swimming towards the shore. The wreck lies with the masts and funnel vertical and half out of the water; and to the rigging several of the survivors clung until they were relieved. The place where the wreck lies is not 50 yards from the shore, and quite close to the lighthouse of Portpatrick. At the time the *Fenella* left, only nine of the bodies had been recovered. Such was the awful consternation and excitement amongst the survivors, after the catastrophe, that very few particulars beyond those already stated could be learned. Amongst the drowned were a father,

mother, and two daughters; the two sons were saved, and one of the daughters reached shore, but died soon after being brought to the hotel.

Captain Henderson, the commander of the *Orion*, and his first mate, both remained at the scene of the wreck, to give every aid to the unfortunate passengers, and to use every effort to recover any of the property that could be saved.

Almost all the survivors were in a state of all but nudity, and they were unable to procure the requisite clothing to come forward by the *Fenella*, although the captain gave all the clothes he could spare to cover them.

The *Orion* was the property of the Messrs. Burns of Glasgow, and was an iron-built ship of great power and size; the internal decorations about six months since cost nearly £3,000, her cabins and wainscots being beautifully adorned with panel paintings, &c. Her superior accommodations made her the favourite vessel of this line of steamers among travellers. She was originally fitted up with water-tight bulk-heads, and thereby divided into four or five compartments; and it has therefore been a matter of surprise that there should not have been the means of keeping the vessel afloat.—*United Service Gazette.*

### Wrecks in the Atlantic.

The arrivals during the last few days from the Atlantic have brought sad intelligence respecting losses of a large number of vessels amidst the floating fields of iceberg in the western latitudes; and among the number we regret to add, was one from the Irish ports with between 80 to 100 persons on board, every soul of whom is supposed to have gone down in the unfortunate vessel and perished. Great quantities of ice are generally looked for by the traders in those parts of the Atlantic about the months of April and May, the result of the breaking up of the frost in the Arctic seas, and driven down to the southward by the force of the currents. The masses that have appeared this season, exceed any of the kind that have for years been met with. They have been immense. Fields of ice some hundred of miles in extent, towering up in all manner of forms, to a very great elevation, have swept the waters of the Atlantic; and there is too much reason to fear that the losses appended form a very few of the mishaps that occurred. The ill-fated vessel, in which so many are believed to have perished, was from Londonderry bound to Quebec. Ten days prior to her being discovered entangled in the ice—the 27th of April—she was spoken with by the Master of the *Oriental*, from Liverpool. She was scarce of water, having had boisterous weather, and, on account of the number of passengers seen on deck, it was supplied her. On the 27th the *Oriental* was beset in the ice, together with two other vessels, and perceived her some ten miles to the westward. She was in a most perilous position, evidently stove in by the ice, and sinking. Signals of distress were hoisted, without the remotest chance of gaining assistance. For two days she was seen in the same forlorn condition, when she suddenly disappeared, and very little doubt is entertained of every soul having gone down in the foundered vessel. Subsequently a great many bodies were seen intermingled with the ice, together with some portion of the cargo; the latter led to the discovery of the port to which the vessel belonged, and her intended destination. The *Oriental* was eleven days before she got clear of the ice.—*United Service Gazette.*

### New Charts.

*Published and corrected in June* 1850, *and sold by J. D. Potter*, 31, *Poultry.*

Folkestone Harbour, *Capt. F. Bullock, R.N.*, 1850. . . . 1*s.* 6*d.*
Yarmouth Roads, *corrected by Ditto. Do.* . . . 0 6
Old Head of Kinsale to Mizen Head, (*Ireland*) *Com. Wolfe and Lieut. Church, R.N*, 1849. . . . . 2 0

| | s. | d. |
|---|---|---|
| GALWAY BAY, *Com. C. A. Bedford, R.N.*, 1850. | 3 | 0 |
| ARCHIPELAGO, *sheet* 6, (*Mediterranean,*) *Capts. Graves and Brock*, 1837 *to* 1844. | 2 | 0 |
| WALLACE HARBOUR, (*New Brunswick,*) *Capt. Bayfield., R.N.*, 1840. | 2 | 0 |
| TATAMAGOUCHE BAY, &c., *Ditto.* *ditto.* 1841. | 1 | 6 |
| MERIGOMISH HARBOUR, *Ditto.* *ditto.* 1836. | 1 | 6 |
| BUCTOUCHE RIVER, *Ditto.* *ditto.* 1843. | 1 | 6 |
| BARBUDA ISLAND, (*West Indies*) *Capt. F. Barnett, R.N.* | 1 | 0 |
| FORMOSA ISLAND, (*China Seas,*) *Capt. Collinson & Lieut. Gordon, RN.* 1845 | 1 | 6 |
| KAWAN ISLAND, (*New Zealand*), *Capt. J. L. Stokes, RN.* 1849 | 1 | 0 |
| NEW PLYMOUTH, or TARANAKI, *Ditto.* 1849 | 0 | 6 |
| COLONIA ROAD, (*South America*), *Mr. C. H. Dillon, RN.* 1847 | 1 | 6 |
| MONTEVIEDO BAY, *Ditto.* *ditto.* 1849 | 2 | 0 |
| RIO GRANDE DO SUL *Ditto.* *ditto.* 1849 | 1 | 0 |
| Great Circle Sailing Tables and Index, Towson's 3rd Edition. | 1 | 0 |

*Hydrographic Office, June 22nd*, 1850. EDWARD DUNSTERVILLE, *Master R.N.*

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory
From the 21st of May, to the 20th of June, 1850.

| Month Day. | Week Day. | Barometer. In Inches and Decimals | | Thermometer In the shade. | | | | Wind. Quarter. | | Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In.Dec | o | o | o | o | | | | | | |
| 21 | Tu. | 29·78 | 29·74 | 58 | 65 | 48 | 66 | NE | NE | 3 | 3 | b | b |
| 22 | W. | 29·62 | 29·59 | 53 | 59 | 52 | 60 | NW | E | 1 | 2 | or 1) (2) | bc |
| 23 | Th. | 29·55 | 29·53 | 57 | 65 | 50 | 68 | W | SW | 1 | 1 | or (2 | bc |
| 24 | F. | 29·45 | 29·46 | 63 | 59 | 43 | 64 | SW | SW | 3 | 4 | bc | bc |
| 25 | S. | 29·56 | 29·59 | 57 | 62 | 51 | 63 | SW | SW | 5 | 5 | qbc | qbcm |
| 26 | Su | 29·63 | 29·66 | 55 | 62 | 48 | 63 | S | SW | 5 | 5 | qbcp (2) | bc |
| 27 | M. | 29·73 | 29·75 | 58 | 60 | 52 | 68 | SW | SW | 3 | 4 | bcm | op (3) |
| 28 | Tu. | 30·03 | 30·09 | 58 | 63 | 48 | 66 | SW | W | 3 | 4 | bcp (2) | bcp (3) |
| 29 | W. | 29·23 | 30·23 | 61 | 67 | 49 | 74 | SW | S | 2 | 2 | bc | bc |
| 30 | Th. | 30·10 | 30·06 | 62 | 63 | 42 | 66 | SE | E | 2 | 4 | bc | bc |
| 31 | F. | 30·12 | 30·17 | 60 | 71 | 50 | 72 | SE | E | 2 | 4 | bc | bc |
| 1 | S. | 30·31 | 30·33 | 58 | 69 | 47 | 71 | NE | NE | 1 | 1 | b | b |
| 2 | Su. | 30·40 | 30·41 | 58 | 71 | 46 | 72 | NE | E | 2 | 3 | b | b |
| 3 | M. | 30·39 | 30·38 | 60 | 70 | 47 | 72 | E | E | 2 | 2 | b | b |
| 4 | Tu. | 30·26 | 30·20 | 59 | 71 | 47 | 73 | NE | NE | 2 | 2 | b | b |
| 5 | W. | 30·04 | 29·93 | 58 | 74 | 52 | 75 | E | SW | 1 | 2 | bcf | bc |
| 6 | Th. | 29·74 | 29·62 | 63 | 57 | 57 | 63 | SW | SW | 4 | 4 | o | or (3) |
| 7 | F. | 29 65 | 29·71 | 60 | 66 | 51 | 67 | SW | SW | 6 | 6 | qbc | qbc |
| 8 | S. | 29·90 | 30 00 | 58 | 64 | 55 | 65 | W | NW | 2 | 4 | bcp 2) | bc |
| 9 | Su. | 30·22 | 30·24 | 58 | 68 | 47 | 71 | W | W | 2 | 2 | b | bc |
| 10 | M. | 30·16 | 30·05 | 61 | 73 | 48 | 74 | SW | S | 1 | 1 | bc | bc |
| 11 | T. | 29·90 | 29·92 | 66 | 76 | 54 | 78 | W | NW | 1 | 2 | bcm | bc |
| 12 | W. | 29 94 | 29·84 | 64 | 66 | 53 | 67 | SW | SW | 5 | 5 | qbc | qo |
| 13 | Th. | 29·70 | 29·68 | 59 | 64 | 51 | 65 | W | W | 5 | 6 | qbcp (2) | qbcp (3 |
| 14 | F. | 29·76 | 29·58 | 58 | 57 | 49 | 58 | SW | SW | 2 | 5 | or 2) | qop (3 |
| 15 | S. | 29·52 | 29·69 | 50 | 52 | 47 | 55 | N | N | 5 | 4 | qor 2) | bc |
| 16 | Su. | 30·04 | 30·04 | 51 | 61 | 39 | 62 | NW | E | 1 | 1 | bm | o |
| 17 | M. | 30·12 | 30·08 | 57 | 64 | 44 | 65 | NE | S | 1 | 1 | b | bc |
| 18 | Tu. | 30·30 | 30·27 | 58 | 71 | 46 | 72 | W | W | 2 | 2 | bm | bc |
| 19 | W | 30·38 | 30·40 | 62 | 70 | 51 | 71 | NW | N | 1 | 1 | bcm | bcm |
| 20 | Th. | 30 27 | 30·32 | 64 | 75 | 52 | 76 | SE | W | 1 | 1 | bcm | bcm |

May, 1850.—Mean height of the barometer = 29·840 inches; mean temperature = 51·2 degrees; depth of rain fallen = 2·47 inches.

NOTICE TO CORRESPONDENTS.—BERTHON'S PATENT LOG.—We regret that we have been unable to find room for Mr. Berthon's very interesting paper in this number. It will however appear in our next. Capt. LEIGHTON'S letter just received.

THE

# NAUTICAL MAGAZINE

AND

## Naval Chronicle.

AUGUST, 1850.

### On the Winds of the St Lawrence, *their connection with the movements of the barometer, the mode of their progression, and the weather that attends them.—By William Kelly, M.D.*

[Abridged from a paper read to the Royal Society of London in July 1845.]

In that part of the valley of the St. Lawrence, that extends from Montreal to Anticosti, the winds usually have a direction either up or down the river; from whatever point they may commence blowing, they soon veer either towards north-east, or south-west, and continue steadily in one or the other direction. The valley for the greater part of this distance is bounded on both sides, by ranges of hills, some of which are of considerable height; and it thus forms a channel for the streams of air, that flow between the great North American lakes, and the sea. Either in consequence of the limits thus put to the direction of the winds, or from other causes less apparent, there is a certain regularity in their movements, and, I may say, such a constancy between these movements, and the fluctuations of atmospheric pressure, as can scarcely escape the attention of the most indifferent observer.

In the autumn of 1828, I joined the naval surveying party on the St. Lawrence, when the charge of making meteorological observations was assigned to me, together with one or two other small extra professional duties. In the daily record of the barometer and winds, I soon perceived that the mercurial column generally fell with easterly, and rose

with westerly winds. Accidental circumstances afterwards shewed me, that some of the easterly winds with which the barometer fell, approached us from leeward; and we had indications, from time to time, that the majority of the westerly winds approached from windward.* For the first I was prepared by Franklin's remarks on the gale that accompanied the eclipse of the moon in 1743; and his comparison of the movement of the easterly winds, to that of water flowing from a canal, open at one end, suggested a ready explanation of the fall of the barometer which accompanies them. By considering that the principle, which accounts for the fall of the barometer in consequence of an out-flowing current of air, would apply equally to its rise with an in-pouring one, I found a probable explanation of the rising of the mercury with westerly winds, since winds that approach from windward must be in-pouring. I now sought every occasion of ascertaining the progress of the winds in remarkable cases, by comparing notes with the officers detached in the surveying boats, by watching more closely the appearances of the sky, that preceded or accompanied winds in any direction, and by taking advantage of any accidental information that shewed when a wind set in at a distant point, noting whether it was earlier or later, than when the same wind set in with us, and whether to windward or to leeward.

In every case that I have been able to trace *in this way*, I found that the barometer fell when a wind approached us from leeward; and that it rose when a wind approached us from windward. The course of the winds being either up or down the river, afforded facilities for thus tracing their progress, which could not be readily met with in any other locality.

The ordinary gales in the valley of the St. Lawrence begin with a north-east wind, which blows for some time, and is followed by a calm, usually of short duration: the calm is succeeded by a wind from the westward.

The north-east wind is preceded by a high barometer, although, in general, the mercury has begun to fall before it sets in. The falling of the mercury, together with the appearance of a bank of clouds forming on the western horizon, are the first indications of an approaching gale. The easterly wind is light at first, but it gradually freshens to a decided gale: and is accompanied by fog and drizzling rain or snow. The barometer continues to sink while this wind lasts, the fall in most instances varying in extent and rapidity with the strength of the gale. The force of the wind at length abates, not gradually as it rose, but for the most part rapidly; and it soon subsides into a calm. The barometer has sunk to its lowest level at the commencement of the calm, and often begins to rise during its continuance. The wind next sets in

* It may be necessary to give an example of the sense in which the terms *leeward* and *windward*, are used in this paper. If we take the case of an east wind, when it approaches us from the *westward*, we say it approaches or comes from leeward: when it approaches us from the *eastward*, we say it approaches or comes from windward.

from the westward, and often with a sharp squall. Its force generally corresponds with the strength of the previous easterly wind, and the amount of descent of the mercury; although there are occasional exceptions in both respects. The barometer rises with the westerly wind, the fog disperses, the clouds break, often rising from the westward, and the sky becomes clear again. The west wind moderates gradually, and the barometer having attained its greatest height, begins to sink again, either during a second calm, or while the wind still continues from the westward.

Although the principal phenomena of the gales occur always in the order just described, yet a careful observation occasionally discovers varieties in the minor circumstances attending them. Thus the easterly wind sometimes commences when the barometer is at the highest, and this is more likely to occur if the rise of the mercury has been very rapid. In such a case the atmosphere is for a short time, unusually clear.

On other occasions, when the barometer has been falling previous to a gale, it rises one or two tenths of an inch at, or just before the setting in of the north-east wind. As this rise, however, is neither considerable nor permanent, it may be easily overlooked if the instrument is not frequently observed. In this case, if the wind sets in with clouds, they do not spread from a bank in the western horizon, as in the first case. The calms moreover, that succeed easterly winds which commence in this way, are usually of much longer duration than in the ordinary gales; and they often give way to light south-west winds, with which the sky may continue for some time overcast, and the barometer rise very slowly. But at length a north-west wind springs up, with it the barometer rises fast, and the sky clears, while the wind again veers gradually to the south-west.

In the first form we find the most violent gales that occur in the St. Lawrence; but we often have it with comparatively moderate winds. Indeed an alternation of easterly and westerly winds; the former bringing rain or snow, the latter clear skies, constitute the ordinary weather here sometimes for weeks in succession.

From March to July the north-east is often a fine weather wind, but it is rarely so at other seasons. In this case the barometer rises considerably with the north-east wind, and may sink again to nearly the same extent, while the weather still continues fine, and the direction of the wind remains unchanged.

For some years I was content to infer the progress of the winds from casual or accidental information. But in 1833 I endeavoured to procure continued observations from various points along the river, by a comparison of which I expected to be able not only to trace the progress of many gales, but also to ascertain whether the correspondence of this progress of the winds with the movements of the barometer, which I had found to prevail in the more remarkable cases, existed also in ordinary winds.

There were five stations, covering an extent of nearly 400 nautical

miles, at which the necessary information might be expected. The first was at Montreal, where an accurate meteorological journal was kept by Mr. J. S. M'Cord, with the aid of instruments of the best description. A minute meteorological journal was also kept with great care by the late Mr. Watt, who had charge of the telegraph at Cape Diamond, Quebec. Then there was the log of the light-vessel, at the Traverse, 60 miles below Quebec: and the journals of the lighthouses, one at Green Island, 60 miles below the Traverse, the other at Point Des Monts, 110 miles below Green Island. The three last, however, had hitherto contained little more than a daily notice of the prevailing winds and weather, often loosely put down, and suggesting the idea that the journal of several days was often written up at the same time. But the Trinity Board of Quebec, at my request, gave directions that for the future, strict care should be taken to record the hours when winds set in, their force at different times of each day, and the hours when they shifted, or subsided into calms.

These directions having been complied with, the value of the journals for meteorological purposes was greatly increased, and by comparing them with Mr. M'Cord's, Mr. Watt's, and my own in the *Gulnare* surveying vessel, I was able to trace the progress of most of the strong winds that occurred between Montreal and the Gulf of St. Lawrence in 1834 and 1835, and to compare them with the accompanying fluctuations of the barometer.

The gales thus traced are sixty-six in all, and these include every instance in which a considerable fluctuation of the barometer was observed at Quebec or Montreal, with a strong wind in any part of the river at the same time. In twenty-six of these the winds followed the course first described. The progress of these gales has long been known to be from south-west to north-east, In almost every case the easterly wind, with which the barometer fell, can be traced approaching from leeward, and in every one of them the *strength* of the easterly portion of the gale, and the calm into which it subsided, was observed earlier in the more westerly, or leeward stations. The westerly winds, with which the barometer rose, are all plainly traceable from windward. There are twenty-eight instances in which the barometer at Quebec, either rose with a wind coming from windward, or fell with a wind coming from leeward, or else it rose with distant winds blowing *towards* Quebec, or it fell with distant winds blowing away from that place; in nine cases no apparent connexion could be traced between the course or progress of the winds, and the fluctuations of the barometer. Finally, in three cases, contrary to what occurred under the second head, the winds blew towards Quebec when the barometer was falling, or blew away from it when the barometer was rising.

The north-east winds that set in with a rising barometer, whether temporary or permanent, could be traced from windward in many instances, but in others they set in at different points so nearly at the same time, that it was impossible to decide satisfactorily on the priority of their appearance at any one of them. It could easily be supposed

that these latter winds came originally from the north, covering a large space; and that their direction changed gradually to north-east as they advanced to lower latitudes.

The coincidences found in these journals between the movements of the barometer, and the quarter from which the winds approached, are too numerous to be referred to accident. The number of the exceptions or even of the doubtful cases is comparatively small, and it is possible, nay, probable, that they would entirely disappear if our sources of information extended over a greater space. In a remarkable gale of the 11th November, 1835, the prior appearance of the easterly wind in the leeward stations could not be traced from the journals I possessed, which extended only from Montreal to Point Des Monts, although its ravages at Lake Ontario on the 10th, and afterwards at Gaspé on the 12th, as detailed in the local papers, shewed plainly that the easterly wind came from leeward. Indeed I had frequent occasion to remark that the observations at Point Des Monts—the station most distant from Quebec,—shewed a correspondence between the approach of the winds and the movements of the barometer, which could not be obtained from the journals of the intermediate stations.

While tracing thus the apparent influence of the winds on the movements of the barometer, I by no means desire to infer that these movements depend on the action of the winds alone: since such action could give no explanation of the simultaneous movements of the mercurial column, that occur over a considerable space, to parts of which these winds do not reach, or in which even contrary winds may prevail.

These simultaneous movements of the barometer seem to mark the progress of great atmospheric waves, the causes of which are obscure or unknown; while the winds in many cases seem to have the same relation to these aërial waves as currents, caused by tides in estuaries and great rivers, have to the tidal waves of the ocean. The tides to which I allude are of the kind termed "tide and quarter tide". All their phenomena are very distinctly marked in the river St. Lawrence. As few persons understand, or take much interest in them, I shall premise a brief sketch of the currents, that attend the rise and fall of the water, in these tides; to the end that a comparison may be more easily made, between them, and the currents of air, in the gales now under consideration.

If we commence our observations, say at Quebec, when the water is at its greatest height, we find that its level begins to sink, while the stream still runs upwards. It continues sinking for some time with the stream in the same direction, chiefly because the force of the current above, and consequently the quantity of water that passes upwards, is greater than the force of the current, or quantity of water approaching from below. The water next seems stationary, (*slack water*,) but its level is sinking; for the stream of ebb having set in below, while the stream of flood continues above, the water is flowing away in both directions. Finally the current sets downwards, or towards the sea; and as the force of the stream below, and quantity of water flowing down, is greater than what arrives from above, the level continues to

sink, until the force of the stream is equal above and below our place of observation; we have then low water.

Although the stream runs down for some time after this, the level of the water begins to rise, as the quantity coming from above is now greater than what is carried off below. At length the ebb stream is met by the returning flood, causing a second *slack water*, which differs from the first by having the water flowing towards it in both directions; and then the whole stream again flowing upwards, raises the level of the water to about the same height as it had when the observation began.

If a barometer was placed at the bottom of the river, it is evident that the mercury in the tube would sink during the ebb tide, and rise again during the flood. If several barometers were placed in the same manner, at different points along the course of the river, they would all undergo similar changes; but the times at which they would reach their greatest depression or elevation, and consequently the times at which they would begin to rise or fall, would be found later as we receded from the sea; the mercury continuing to fall in each place, after it had began to rise in those lower down the river; and *vice versâ*. When the streams of both flood and ebb flowed at the same moment towards any of the points of observation, the mercury would rise there; if both flowed from it the mercury would fall. Again it would rise if either stream approached the point of observation at a greater rate, than that at which it flowed beyond it; but if the approach was at a less rate, the mercury would fall.

Let us now consider in what degree the direction and strength of the winds in the gales referred to, together with the accompanying barometric movements, correspond with these statements respecting the tides.

The easterly portion of the gale, beginning in the west, and gradually advancing to the eastward, contrary to its apparent course, resembles the progress of an ebb tide; and the barometer falls, while the wind lasts, just as it would do, if placed at the bottom of a river, while the tide was ebbing. The calm which succeeds, and during which the barometer begins to rise, resembles the *slack water*, that follows the stream of ebb; towards which the currents are setting in both directions. The westerly wind resembles the returning flood tide. The barometer rises with this wind, as one at the bottom of the river would, with the stream of flood, and having attained its greatest height, begins to sink again, while the main direction of the wind remains unchanged. Thus the latter part of the westerly wind resembles the last of the stream of flood, in rivers where there is *tide and quarter tide.*

The times at which the calms or changes of wind occur, which are later in proportion as the place of observation is more to the eastward, are in perfect analogy with the different times of high and low water in the river, which are found to be later in each place, as the observer is farther from the sea.

The varieties occasionally met with in the direction of the wind in the

vicinity of the main streams, find a parallel in river tides. Thus in the broader part of the St. Lawrence, where the body of the water runs in a deep a channel, with shoaler water at the sides, the currents on the shoals are found, both in ebb and flood, to have different directions from the main stream, and sometimes at right angles to it, the water flowing from the centre to the shores, during the early part of the flood, and from the shores towards the centre of the river, during the early part of the ebb. This is very remarkable at the island of Bic, where the river is several miles in width, and from 30 to 100 fathoms deep, where tides in fact are seen on the largest scale. Even a greater apparent anomaly in the course of the winds might find a counterpart here: for there is a narrow tract of water between Red Island and Bic, in which the direction of the stream throughout the flood, is always downward, although it runs upward at the same time, over all the remaining deep water of the river.

The cause of the set of the streams, to and from the shore in these cases, is too obvious to call for any explanation; and a like cause, in the case of gales, may produce currents on either side of the main stream; from which, if they are only *partially traced*, the idea may be formed either of a revolving wind, or of many winds converging towards a centre, according to the different points from which information is obtained.

It may be necessary to make some apology for offering another attempt, at explaining the course of North American gales, in addition to those of Messrs. Redfield and Espy, especially as the rotary hypothesis of the gentleman first named, is now very generally received. I can only say that this hypothesis does not seem at all applicable to the gales of the St. Lawrence, in which I could never discover any tendency to a rotatory motion. Some of the gales I have traced, (as that of the 11th of November, 1835, already referred to,) have been classed with revolving winds, but I could find nothing of that character in them, although I believe I had fuller notes of their progress, than any other observer; and I could not find, that they differed in any respect, save violence, from the ordinary gales.

The view I have taken is founded on the observations of many years; and I think it is better fitted to connect the various phenomena of the gales of the St. Lawrence, than any that has preceded it. How far it may apply to other localities, remains to be proved, should it be thought worthy of attention by other observers, whose situation may enable them to test it. The explanation now submitted, has at least the advantage of showing an analogy between the movements of great bodies of air, and of water; differing from each other no more than might be expected from the different nature of the fluids concerned; while vortices, of any considerable extent, are unknown in the ocean; and the most extensive of those seen in the air, if we except the gales in question, the rotatory nature of which still remains to be proved, are like the eddies and whirls of water, confined to comparatively narrow limits. Except at the junction of the trade winds and the variables, it is difficult to imagine

such an interference between opposite currents of air, as could give occasion for vortices having a diameter, as many are said to have, of from 500 to 700 miles.

The only point in which the analogy between the gales and the tides seemed to fail, was the rapid subsidence of the easterly wind, as we find nothing similar towards the termination of an ebb tide. But it is no uncommon occurrence in the Gulf of St. Lawrence, nor probably in other seas, to find a fresh summer breeze blowing with unabated force up to a certain line, beyond which all is calm; nor to find a ship taken aback, from an apparently sudden change of wind, when she has only run into a calm space, with the velocity she had derived from the wind that blew up to it. The great force, with which the westerly wind usually sets in, bears a striking analogy to the *bores* in the Bristol Channel, the Bay of Bengal, or the Bay of Fundy.

The weather that attends easterly and westerly winds on the St. Lawrence may be in a great measure accounted for by the diminution or increase of atmospheric pressure, which results from the out-flowing or in-pouring of air; or from the passage of great atmospheric waves: and it seems to me that this principle has not been sufficiently attended to by meteorologists in their endeavours to explain the alternations of dryness and moisture in the atmosphere.

We know that an apparently dry air may be rendered damp by lowering its temperature; and that a damp air may be made comparatively dry, by having its temperature raised. It is also known that cold is produced by the expansion of the air; and heat by its compression. All this is well illustrated by the familiar experiment with an air pump, in which the dew deposited on the inside of the receiver when a portion of the air is withdrawn, disappears when the abstracted air is allowed to return.

In the same way an out-flowing wind, with which the pressure is constantly lessening, must be attended by a continued expansion of the air, and consequent production of cold, while an in-pouring wind, with which the pressure increases, must be attended with condensation of the air, and extrication of heat.

The cold or heat thus produced are often masked or modified by circumstances that affect the radiation of caloric from the surface of the earth: but in the elevated regions of the atmosphere, which, from their distance, are slowly influenced by causes of heat or cold that act on the surface of the earth alone, where the temperature of the air, and the dew point nearly correspond, the influence of change of pressure must be direct and uniform. There even a small diminution of heat will cause haze, mistiness, or clouds; and an equally small increase will be sufficient to dispel clouds or mist, and give renewed clearness to the sky.

In circumstances favourable to deposition, as when the whole mass of the air is already charged with moisture, the cold resulting from rapid and continued expansion seems quite sufficient to account for the drizzling rain, which we so frequently find to accompany a falling barometer.

When an in-pouring air is much colder than that with which it mixes;

or when a moist warm air flows in and mingles with one much colder; the first contact, in either case, is often attended by a dark cloud, and sometimes by heavy rains. But these disappear after a time, and the sky becomes clear again. On the other hand when the mass of the air is dry, it may drain away to a considerable extent with merely a hazy or overcast sky. In the one case it would seem, that the heat evolved by condensation, is not sufficient to counterbalance the effects resulting from the mixture of currents of air of different temperatures: in the other, that the drier air can bear much cooling from expansion, before any considerable deposition of moisture takes place.

[When a clear sky becomes overcast in consequence of the cold resulting from diminished pressure, the interruption to radiation from the surface of the earth tends to maintain the temperature of the air in contact with it. On the other hand, should an overcast sky become clear in consequence of the heat evolved by increase of pressure, the cold produced by the radiation of heat from the surface of the earth, tends to cool the lowest stratum of the air. This latter effect is most remarkable in winter, when the earth loses much more heat by radiation during the long nights, than it gains from the sun during the short days.]

---

## The New Hebrides, New Caledonia, and the Loyalty Islands.

1.—These islands, few of which have ever been visited by a ship of war, are in a commercial point of view, of much greater importance to our Australian colonies, than any others in the Pacific; from ten to twenty vessels being constantly engaged in the lucrative trade in sandal-wood, and beche-le-mer, with China. For the collecting and shipping of these articles, two establishments have been formed within the last few years, viz, one at Aneiteum, the southernmost of the New Hebrides, and another at the Isle of Pines,* immediately to the south-east of New Caledonia, giving employment to a considerable number of white men, in addition to those navigating the vessels. The former appears to be principally the property of a Mr Paddon, formerly commanding a vessel in the trade, who resides there, and is extending his speculations, setting up saw mills, &c.; and the latter to a respectable man in Sydney, a Mr. Town and his partners—the establishment being under the charge of an agent. These and other merchants have also occasional agents at different islands, collecting sandal-wood and beche-le-mer, for muskets, axes, cloth, tobacco, &c., which is called for by the trading vessels, and taken either direct to China, or to Sydney, to be shipped for that market.

2.—The inhabitants of these islands are of various mixtures of races, those of Tana and New Caledonia being blacker, and more woolly haired than the people of the Loyalty Islands, and Vate or Sandwich Island,

* The reader will find another account of the Isle of Pines and the Loyalty Islands in our volume for 1848.—Ed.

to the northward, who appear to have more of the Polynesian blood and language, than their neighbours. They are, however, generally cannibals (as many have confessed to myself and other officers); although, unlike the Feejeeans, they eat only the bodies of their enemies, and in some cases those of shipwrecked persons, whom they consider a fair prey, a fact expressed by the saying, that "all is fish which comes out of the sea." The New Hebrides are more fertile than New Caledonia, and the Loyalty Islands, the latter (low coral islands) being generally barren, and the inhabitants apparently very poor; but sandal-wood grows more or less at all, being perhaps the most plentiful at Erromango.

3.—Since the commencement or revival of this trade, about 1840, it has (with a view to prevent competition and interference by regular authority), been carried on until lately with the secrecy generally observed in contraband transactions, which makes it still difficult to obtain precise information concerning it. It was well known, however, that the men employed were usually of reckless character; and accounts of fights with the natives, and treacherous attacks on both sides, attended with considerable loss of life, occasionally reached Sydney. When at Tonga-tabu, I was informed by a young chief, (Methuselah Tae), who was one of the party, that some years ago (it is believed about December 1842), two vessels under British colours, belonging to Sydney, the "*Sophia*," Henry, Master, the "*Sultana*," Scott, and another, said to have carried the Tahitian flag, commanded by a man named Dennison, formed a regular expedition at Tonga, for the purpose of forcibly cutting sandal-wood at the New Hebrides. Sixty Tonguese, armed with muskets, were embarked, twenty in each vessel, under a chief named Maafu, brother of the then king, Josiah Tobou. The expedition called at Lakemba to procure more men, which they did not succeed in doing, and then proceeded to Erromango, where the party was landed, and a quantity of sandal-wood cut and embarked. Having had an affray with the natives, one of whom was shot, they went on to Vate or Sandwich Island, and continued their depredations. The Tonguese stated that his countrymen were landed armed, the white men remaining on board, and ordered to cut wood. They soon had a quarrel with the people of the island, who, having no muskets, were defeated with a loss of twenty-six killed. The others having fled to a cave for shelter, their pursuers secured the entrance, and piling up a heap of houses and rubbish, set fire to it, and suffocated them all. One of the Tonguese only, was killed by an arrow; but in spite of these affrays, and the remonstrances of Maafu, Henry, who commanded the expedition, kept them cutting wood for three days longer, before he would accede to their wish to return home. This statement was made to me in the presence of the governing chief, Shadrach Munuu, and all the missionaries; and several others were pointed out as having been on the expedition, the history of it being perfectly current with all the inhabitants of the island. At Sandwich Island (Tongalulu and Talipoa Ura,) corroborated the story, saying that on one side of the harbour forty, and on the other twenty, of their people, were killed on the occasion. The three vessels returned

to Tonga-tabu, taking some natives of Erromango with them, (two of whom I saw,) and afterwards went to Tahiti, where Henry is said to be at present engaged as a pilot, by the French Government, to which one at least of the vessels, the "*Sultana*," was afterwards sold, and is now in their employ.

4.—Forcible measures, though not to the same extent, have frequently been resorted to by other vessels, and all kinds of excesses have been committed by the undisciplined crews, who always carry arms, and are but too ready to make use of them. It is not surprising that the natives of the different islands (anxious though they are to traffic with Europeans) consider themselves justified in taking every advantage of men who treat them in such a manner. During the last few years, accordingly, constant disputes, attended with loss of life on both sides, have taken place. The following list, comprises probably a very small number of what have actually occurred, information being very seldom given by the white men engaged, and impossible (from the want of interpreters and knowledge of the many dialects) to be obtained from the natives.

*Vessels and Circumstances.*

1. Boat's crew killed at Marr; supposed to have belonged to the schooner "*Martha*," of Sydney.—About the end of 1841.

2. Brig "*Star*," of Sydney, taken, and all the crew killed, at the Isle of Pines.—October 1842.

3. Brigantine "*Catherine*," of Sydney, attacked, several killed and wounded, the vessel nearly blown up at the Isle of Pines.—Early in 1843.

4. Barque "*Magnet*," of Sydney, attacked at Lifu, Chief and another native shot; afterwards long-boat attacked, and several natives killed, their canoe and catamaran seized and kept.—October 1843.

5. Brig "*Brigand*," of Sydney, attacked at Marr; seventeen of the crew killed and wounded.—November 1843,

6. Cutter "*Sisters*," of Sydney, taken at Marr, and the crew (eleven in number) killed.—End of 1843.

7. Affray at Tana with the crew of a vessel, in which some Samoan missionary teachers were embarked; one seaman and five natives killed, several wounded.—Early in 1846.

8. Barque "*British Sovereign*," wrecked off Vate or Sandwich Island; all the crew, except two, killed.—April 1847.

9. Schooner "*Elizabeth*," of Sydney, boat capsized at Erromango, with five men—two killed; this vessel had several affrays with the people of Erromango, and was at last lost in February 1848, when all the crew perished.—1847.

10. An expedition undertaken by the boats of the barque "*Spy*," of Hobart Town, up the river Kanela, in New Caledonia; one man wounded, and many natives said to have been killed.—1847.

11. Two boats' crews of the schooner "*Vanguard*," of Sydney, eight in number including the master, killed at Numea, in New Caledonia.—October 1847.

12. Two boats' crews of the barque "*Avon*," of Sydney, attacked at the same place, several wounded, first mate lost an arm and an eye.—January 1848.

13. A small vessel taken off Resolution Bay, Tana, master, (white, noto-

rious among the islands,) and two others killed. The perpetrator of this deed was afterwards clubbed by his own people.—May or June 1848.

14. Schooner "*Terror*," of Sydney, boat taken, and one man killed at Erromango. Another vessel, the "*Daniel Watson*," is said afterwards to have sailed down the coast, firing at all natives indiscriminately whom they could see. The master or mate of another vessel is also said to have fired at and killed a friendly chief, who was swimming on shore from the schooner.—About June 1848.

5.—As a means of checking such proceedings for the future, I determined to call at as many places frequented by sandal-wood traders as my time would permit, attempting to open some communication with the chiefs, and explaining to them the necessity of both parties adopting a different system in trading. In all these places I found the chiefs perfectly disposed to listen to reason, having generally no concealment about the fights, &c., which have taken place, but seeming to consider them the necessary consequences of carrying on a barter with Europeans. The Bishop of New Zealand had told me at Auckland his intention of visiting these islands about this time, to communicate with the Samoan teachers connected with the London Missionary Society, and ascertain the practicability of placing missionaries at different localities. I fell in with his Lordship accordingly off Tana, on the 2nd of September, and continued in company with him until he quitted the Isle of Pines on the 22nd.

6.—At Resolution Bay, Tana, I found that an Englishman, who had deserted but a few days before from a Sydney vessel, had on the day previous to our arrival joined a war party of the natives, at the request of one of the chiefs, (from whom he expected some favour,) and shot a man of the opposite side. I accordingly detained and removed him from the island, explaining to the chief, who was perfectly satisfied of the justice of the proceeding, my reason for doing so. This man had belonged to the "*Vanguard*" schooner, when her boats were seized and their crews killed at Numea, in New Caledonia, in October 1847, and was afterwards useful in pointing out that and other places on the coast. I have since set him at liberty at Sydney, it being impossible to produce legal evidence of the act of which he was accused.

7.—I proceeded to sail round the Island of Tana, where there are several anchorages, frequented by vessels, and where I had reason to believe squabbles had taken place during the last few weeks, landing occasionally to communicate with the natives, and induce them to come off to the ship, that they might have some notion of the purpose of our appearing there. I then ran across to Vate, or Sandwich Island, anchoring in a capacious harbour, on its south-west side, which I named "Havannah" harbour, she being the first of Her Majesty's ships who had anchored there. Having had the same satisfactory interview with the natives, I proceeded (touching at Nea, the westermost of the Loyalty group,) to Jengen, a harbour on the east side of New Caledonia, about 50 miles to the south-east of Balade, where the chief, an intelligent man, who had been at Sydney, and speaks some English, is considered a very friendly person to Europeans. I continued down the

coast, calling at the other two Loyalty Islands, Lifu and Marr; at the latter of which some of the most desperate attacks on vessels had been made. As the character of the people, however, has so much improved, as to admit of six missionary teachers residing among them, and the chiefs (father and son, who had headed the attacks alluded to) were dead, I thought it sufficient to demand that a chain cable and some smaller articles, said to have belonged to the unfortunate cutter *Sisters*, should be delivered up, which was done immediately, with the most positive promises that no outrage of the kind should be again attempted. It should be stated in fairness, that the reason given by those people for the attack on the *Sisters*, was the fact of the principal chief, Jewe, having been ropes'-ended by the master during a dispute about the payment for sandal-wood—an insult which no islander in the Pacific, especially one of high station, could brook.

8.—At the Isle of Pines, where, as mentioned before, there is a settlement of Englishmen collecting wood, &c., for Sydney merchants, and where, in consequence of the considerate manner the natives have been treated, the best feeling exists between both parties, I procured a native pilot or guide for the district of Numea, on the south-west side of New Caledonia. On arriving there on the 25th of September, I sent for the chiefs who were supposed to have instigated the attack on the *Vanguard* and *Avon's* boats, in October 1847; two of them came on board, without any pledge being given on the officer's part for their safety, but were not identified by the man, (Robert Stephens,) who had been in the former vessel, as having been among the attacking party. Having been informed that the boats in question were still in the possession of the people of another settlement, Jitema, a few miles down the coast, I sent Lieutenant Pollard to demand them, and detained the chief (Angulla or Muiru) until they were given up. Lieutenant Pollard returned with two chiefs of Jitema, who had at once given up the only remaining boat, which however was not in a fit state to be brought off. Seeing that they were all thoroughly alarmed, throwing the blame of the quarrel on the master of the vessel, and the people of the Isle of Pines; and finding it quite impossible, from an ignorance of their language, to ascertain the true facts of the case I thought it unnecessary to take any further steps, feeling satisfied that they will not willingly engage in any more treacherous enterprizes. All the chiefs, on quitting the ship, and being relieved from their fears, made as far as they could be understood, the most solemn promises to protect white men in future. Whether they will be enabled to keep their word will of course depend upon the way they may be treated; but the occasional visit of a ship of war, and publicity in general on all matters connected with these people, would certainly be the best means of ensuring it.

9.—I sailed from the coast of New Caledonia for Sydney on the 28th of September, and regret that my time did not allow me to see more of all these islands, particularly the two larger of the New Hebrides—Espiritu Santo and Malicolo, which are little known, except to a few sandal-wood traders.

10.—For the reasons above stated, it is impossible to form any estimate of the population of these islands. On all the coasts they shew in great numbers; and from the appearance of New Caledonia, especially on the north-east coast, where the hills are carefully cultivated and irrigated, and where they speak of hostile inland tribes, it must be considerable. There are no English missionaries in the group, but there are Samoan and Rarotongan teachers in connection with those in the Navigators, at the latter island, and also at Vate and Marr.

11.—The Bishop of New Zealand during his late visit selected, from among many who offered at different places, three or four lads, whom he has taken to Auckland for education at the college, and who, it is to be hoped, will be useful, ultimately, as interpreters; and his Lordship is, I understand, in hopes of being able to place one or two missionaries in New Caledonia. There are two belonging to Nova Scotia, who are ready to take advantage of any opening, residing for the present at Aneiteum, where, as at the Isle of Pines, the French Roman Catholic mission has stations with the same view. At the latter place, I met the French bishop, who, with his people, had been obliged to leave Balade, in New Caledonia, about two years ago, now returning from Europe by way of Tahiti, with several priests, to re-establish themselves at Jengen, where they had formerly purchased about 200 acres of land. I was given to understand that the hostility of the natives to them at Balade arose from the conduct of the crew of the French corvette de charge *La Seine*, who after the wreck of that ship in 1846, remained there some months, until vessels could be procured to take them away. The crew of the *Brilliante* corvette, who afterwards came to remove the mission, were attacked, and five men wounded by the natives. Those of Jengen, however, being tolerably well disposed towards foreigners, and under the authority of an intelligent chief, (Bassett or Barrett,) who had carefully protected the land of the mission during their absence, and fully acknowledges their title to it, it is probable they will find no difficulty in settling, and with common prudence on their part, establishing themselves firmly there. Should another Government entertain (as is generally believed in these seas) any scheme for the occupation of New Caledonia, such an establishment would (as in other places) afford cause for the visits of ships of war, and perhaps occasional interference on its behalf, with the chief's authority. The bishop himself told me that he was to have left Tahiti in a ship of war, if one could have been spared, and he did come to Aneiteum in a schooner (the *Sultan*) belonging to the Government.

12.—That a little regulation only is necessary to establish a fair and practicable intercourse between our people and the inhabitants of these islands, is evident, from the beneficial effects already produced in this respect by the two establishments (or factories as they may be called) at Aneiteum, and the Isle of Pines. The Europeans there live on the best terms with the natives, (those of the latter island only a few years since considered the most savage and treacherous of any,) who are rapidly acquiring even the English language, and seeking employment as

seamen, &c. Difficulties, however, must be expected to arise, as the numbers of white men thus employed increase, and (as is already beginning to be the case) they spread themselves as settlers over all these islands. Desertions are numerous, and many are induced to come from Sydney, who are afterwards employed by the agents of the sandal-wood houses on their own terms. Shore whaling has already been attempted at Aneiteum, where fish are extremely plentiful; and as many circumstances are in favour of its being carried on, it is not likely that it will stop there. Should, therefore, no precaution be taken by the Government, a few years will probably produce (on a smaller scale) questions as troublesome to settle as occurred in New Zealand previous to its occupation as a British colony.

13.—The very slight acquaintance with the hydrography of these countries (the French chart of New Caledonia and Loyalty Islands by the *Astrolabe* and *Zelee*, being scarcely worth the name,) is a serious impediment to commercial intercourse, and regular visits by Her Majesty's ships.

During our hurried cruize, Mr. Hilliard, the Master of the *Havannah*, has been very diligent in acquiring information, and making drawings of some harbours, which may be useful in future.

[After reading the foregoing, the annexed account of outrages which have been recently committed among these islands will occasion no surprise; and a repetition of such accounts must be expected until some authority is established which shall extend the stern arm of justice both for the protection of the unfortunate natives as well as settlers.—Ed.]

---

### Massacres at the Sandal-Wood Islands.

In the *Herald* of the 12th inst., an account was given of the voyage of the *Elizabeth* schooner, to New Caledonia, and the accounts brought by that vessel, led to the supposition that not only had the party at Mr. Fitzgerald's beche-le-mer fishing establishment, at the north end of the island, been driven away or massacred, but that the French Mission establishment, at Yengin, or Beledeh, had shared the same fate. The *Mary Anne* schooner, which arrived yesterday, brought further accounts, which we regret to state are of a most melancholy character. The superintendent of Mr. Fitzgerald's establishment, Mr. David W. Miller, arrived by the *Mary Anne*, and by him we have learned the following particulars:—

*Feejee Islands*, 1849.—On the 10th July, we sailed from Cantate Harbour in the *Mary*, cutter, for Balade Harbour, New Caledonia, in company with the schooner *Minerva*, and the *Sir John Franklin*. We arrived there after a passage of twenty-one days. On the 12th September, the *Mary* returned to Balade to look for the *Sir John Franklin*, which vessel she expected to find had returned there from Sydney. On arriving there, Captain Roby, of the *Mary*, sent a boat with Robert Hall, an American, and a native of Rotumah, to procure water. On getting up the river they were attacked by natives and killed. After this, two natives came on board the *Mary*, under pretence of selling fish; the cook went down into the hold, to bring up some yams to exchange for the fish, and the captain's attention having been drawn to the fish in the canoe belonging to the natives, they split his

head with a tomahawk; they then killed the cook as he was coming out of the hold. The only man now left alive on board the *Mary*, was a Rotumah man, whom the natives would not eat, because of a disease in his eyes which rendered him almost blind.

They cooked the bodies of the captain and crew ashore, and ate them, after which they burnt the vessel to the water's edge. This is the statement of the Rotumah man, who managed to make his escape from the cannibals to Yengin, and who related the facts to Mr. Miller, who now takes up the narrative in person and who writes from Mr. Fitzgerald's establishment:—On the 8th Sept., we not having heard of the loss of the *Mary*, Mr. Fitzgerald sailed for Sydney, I being left in charge of the beche-le-mer expedition—the party consisting of John Blake (an American), nineteen Feejee men, one Rotumah man, and Abraham Silver (an East Indian). On the morning of September 20th, the natives brought me some grass for thatching, and appeared on very friendly terms. About noon, from 300 to 400 of them assembled, and rushed upon us with spears and clubs. We took to our arms, with which we were enabled to keep them off till about 4 P.M., and two being killed and a number wounded, they retired. John Blake, the American, refusing to fight, and holding a correspondence with the natives, I took his gun from him and gave it to one of the Feejee men. The natives continued quiet until the 11th of October, when a large body of 800 or 900 natives assembled and commenced an attack on our settlement, which they maintained with great determination from eleven in the morning till sunset. One of the Feejee men was wounded with a spear, and I had several very narrow escapes. The natives had surrounded our hut, and were calling out to John Blake to set fire to it. Several of the natives being killed and a number wounded, we made a rush at them and shot their principal chief, on which they all ran away. On the following day, finding that our Feejee natives had lost heart, and were constantly crying, we thought it was best to prepare to leave, as we could not stand another encounter with the natives, our ammunition being nearly expended, and on the 14th of October, we took the boats and started for Yengin Having yams and water we pulled up the coast, followed by about 200 natives, until we arrived at Balade. We then landed on a sand bank to recruit, where the natives attacked and obliged us to retake to the boats, one of which being very leaky we left behind.

We then pulled to the south-east, the wind being contrary and blowing strong. During the night I missed one of the boats, and ran to the lee side of a small island where there were no natives. We were obliged to remain here for four days, it blowing and raining very hard. The weather having moderated, we pursued our course to Yengin, and during the passage picked up two natives from the missing boat, the others having most likely been cast ashore and taken to the bush.

On the 25th October we arrived at Yengin, after being eleven days in the boats, and were kindly received by the French missionaries, and remained with them until the arrival of the schooner *Mary Anne*, when the bishop granted us a passage to Aneiteum, from which place Capt. Padden was kind enough to give me a passage to Sydney.

I do not think the natives would have attacked us had they not been encouraged to do so by the man Blake, who stole a boat and deserted from the schooner *Vanguard*, a short time previously, and had been living with the natives since.

*Cook's Bay, Erromanga.*—Extract from the log of the *Rover's Bride*, dated 11th December, 1849: light breeze; schooner *Rosetta* in company,

At 7 A.M. lowered the boat, and sent the first and second mate to trade for sandal-wood at Mallaby and Bunkett, the vessel cruizing between those places. At 2 P.M, Mr. Banner, first mate of the *Rosetta*, came on board, and stated that he had some suspicions that one of my boats was taken by the natives, he having been trading at Effoo, a place about two miles distant from Bunkett, and that about noon the natives of that place gave over trading, and informed him that the Bunkett tribe had taken a boat, and killed the crew of five men. The Effoo natives then went in the direction of Bunkett, taking with them their tomahawks and other weapons. On which Mr. Banner returned to the *Rosetta*, and informed Capt. Edwards. In the meantime Mr. Dill, who had been trading at Bunkett, and had seen the *Rover's Bride* there, trading with the natives on very friendly terms, went back to the *Rosetta* for more trade, and on his return to Bunkett found no natives but two, who brandished their spears, and said "No wood to day." The *Rover's Bride's* boat was gone, and Mr. Dill having returned to the *Rosetta*, and informed Capt. Edwards of his trip, that gentleman immediately sent Mr. Banner, to inform Capt. Bell of the *Rover's Bride*. Capt. Bell immediately made a signal to his other boat at Mallaby to return to the ship, and on her arrival he despatched her with two extra hands, in company with the *Rosetta's* boat, to ascertain the facts. On their return at 7 P.M. they made the following statement: When the boats arrived at Bunkett the crews landed leaving one man in charge of each.

On examining the beach they found it strewed with portions of hair and patches of blood; they then proceeded up the rirer as far as possible in the boat, and, on landing, discovered one ton of sandal-wood besmeared with blood, near which was the stump of a tree literally covered with blood, portions of flesh, hair, &c., and which from its appearance seemed to have served the purpose of a block for this human butchery. Near the stump was found a pistol, belt, and canvas pistol bag; no natives were seen, and not a vestige of the boat save the anchor buoy. Finding that nothing further could be ascertained they took the sandal-wood and returned to the vessel. Capt. Bell then consulted with Capt. Edwards, and it was deemed best for the *Rover's Bride* to proceed to Anatam, and the *Rosetta* to continue cruising about Cook's Bay for five days, in case anything further should transpire. On the Sunday prior to the massacre the chief of the Bunkett tribe was on board the *Rover's Bride*, received some presents, and appeared on the most friendly terms. Bunkett is a small boat harbour and creek, on the south entrance of Cook's Bay, Erromanga. The following is a list of the names of the men killed—Mr. William Jordan, first mate, of Berwick-on-Tweed; John Allen, of Liverpool; Frederick Gardener, of London; John Burrows, of Glasgow; and Edward Ward, of Bristol, seamen.

---

## The Remains of the Avenger on the Sorelli Rocks.

The following extract of a letter from Admiral Mathieu the Hydrographer at the Depot de la Marine in Paris, to Admiral Sir Francis Beaufort, Hydrographer to the Admiralty, contains some particulars on the loss of the *Avenger*, that will interest the readers of the *Nautical*. It will be remembered, that several accounts of portions of her wreck thrown on the coast of Italy, appeared in our last year's volume. The Admiral says:—

I received yesterday from M. Ensign de Vaisseau Bouchet Riviere,

commanding the *Roberach*, on the coast of Algiers, a report, an extract from which I hasten to send, as it will particularly interest you.

M. B. Riviere is employed surveying the coast of Algiers, and its dangers, and has just discovered the wreck of the *Avenger*, on the Sorelli Rocks, off Bona. The particulars which he gives leave no doubt as to the occasion of the accident, and the manner in which it occurred.

M. B. Riviere is an experienced Nautical Surveyor, and his account is entitled to the fullest confidence.

*Bona, 12th June.*

"Having been appointed last year to command the *Roberach*, I commenced the soundings, between Galita and the Sorelli Rocks, in pursuance of orders from the Depot de la Marine; but was prevented from completing my work by having to attend the Coral Fishery, and the bad weather so common here.

"This year I availed myself of the first fine weather to resume my work, and was so fortunate as to find the Sorelli. I passed a whole day of beautiful weather at anchor in the *Roberach*, at a cable's length from the rocks, and had quite sufficient time to complete my examinations which I hasten to communicate to you. The English frigate *Avenger*, was certainly lost on the Sorelli, midway between the two rocky pinnacles which form this danger, and most justly called Sorelli; I have seen her engines, two anchors, a chain, a large gun, and scattered fragments of her wreck; I recovered some pieces of the machinery and a cutlass. The engines lie in a depth of about five fathoms.

"From accounts given me by persons who saw the *Avenger*, from boats on the day she was wrecked as well as from my own personal inspection of her remains, I have good reasons for believing that the wreck occured thus. The *Avenger* having skirted the coast all the day was off Collo in the evening, and the weather having suddenly become very bad, the wind blowing hard from the N.W., she hauled to the northward to get an offing and avoid the Sorelli; and when her captain considered he had passed to the northward of them he resumed his easterly course. He had not sufficiently allowed for the current occasioned by the wind, and which I have experienced with N.W winds running at the rate of three knots per hour. Thus the *Avenger* was set from her course; she stood on to the eastward, but was not to the northward of the Sorelli; and soon after resuming her east course, the night being very dark, she struck on the rocks. I have seen distinctly the place where she struck. Her first blow must have been terrific. It took place on the south-west part of the north-west rock, (which has about two fathoms of water over it,) leaving a huge white furrow on it; and about a quarter of a cable's length further on, she struck the south-east rock, which had not more than $1\frac{1}{2}$ fathom on it, and sunk, leaving a conspicuous mark on this also.

"The agitated state of the sea has left only the engines and some wreck, which may be distintly seen between these two rocks, thickly covered with weed.

"Considering it my duty to communicate to you all the observations

I have made on the loss of this vessel, the following may be interesting to seamen.

"The Sorelli, most correctly so named, are formed of two platforms of rock a quarter of a cable apart, having a depth of 5 to 8 fathoms between them. They lie north-west and south-east from each other, the north-west one being about 11 fathoms across with $1\frac{1}{2}$ or 2 fathom over it, and the south-east rock is about 32 fathoms across, with not more than 4 feet on it. The south-east rock according to my observations, the result of which agree with Admiral Berard, is in lat. 37° 24′ N., and long. 8° 36′ 45″ E., bearing S. $69\frac{1}{4}$° W. of Galita, 17·4 miles and N. $0\frac{1}{2}$° E. 27·3 miles from Cape Roux.

"I passed a whole day anchored in the *Roberach*, under the lee of these dangers, and saw distinctly all the remarkable points of the coast, distinguishing clearly the summits of the Bona mountains; I have taken several views and angles between the different points, &c. I have sounded in all directions, and especially where Capt. Smyth, found 4 fathoms, and which Admiral Berard, who never found but one head considers to be the second head. I have not found bottom at this place marked at less than two miles from the Sorelli, which has but one fathom over it. My soundings extend to a mile in all directions.

---

## Influence of the Moon on the Earth's Atmosphere, *translated from the French of Mr. Arago, by Com. L. G. Heath, R.N.*

(Continued from page 386.)

### *On the influence which the rising, the setting, or the meridional passage of the Moon, appears to have upon rain.*

There are four remarkable points in the daily path of the moon round the earth; viz: the upper meridional passage, the lower meridional passage, the rising, and the setting. The following curious observation, relative to these four points, is to be found in a memoir by Toaldo, which obtained the prize from the Royal Society of Science, at Montpellier, in 1774. "Out of 760 showers, 646 began within half an hour of the moon's being on the upper or lower meridian, or of its rising or setting." So that, out of a total number of 760 showers, only 114 seem to have been independent of lunar influence! Certainly nothing more improbable than such a result can well be conceived. But on the other hand, how could Toaldo possibly have made so gross a mistake in a mere record of facts? Be this as it may, I quote the passage because it may lead to future investigation, but I do not guarantee the fact.

### *Influence of the moon on the direction of the wind.*

Mr. Schubler's tables, compiled from sixteen years' observations at Augsburg, show that, in Germany, southerly and westerly winds become more and more frequent from new moon down to the second octant, and that they are least common about the second quarter, which last is also

the time at which northerly and easterly winds are most prevailing. Should we ever succeed in discovering what the physical action is by which the moon produces these changes of wind, that same action will also explain to us all those phenomena connected with rain that we have already discussed, as well as the no less curious ones upon which we are now about to enter.

*On the mean height of the barometer in the different positions of the moon.*

The observations, on which the following results are founded, were made by Mr. Flaugergues, at Viviers in the department of Ardeche. They comprise the period of twenty years between October 1808 and October, 1828. Mr. Flaugergues, confined himself to the discussion of observations taken at noon, in order that, the position of the sun being constant, the variations in the mean barometric height might be those which were referable to the moon alone. The heights are reduced to the temperature of melting ice.

MEAN HEIGHT OF BAROMETER.

| | | |
|---|---|---|
| At new moon ... ... ... ... | 29·743 | inches. |
| „ First octant ... ... ... ... | 29·741 | — |
| „ First quarter ... ... ... ... | 29·740 | — |
| „ Second octant ... ... ... ... | 29·716 | — |
| „ Full moon ... ... ... ... | 29·736 | — |
| „ Third octant ... ... ... ... | 29·751 | — |
| „ Last quarter ... ... ... ... | 29·772 | — |
| „ Fourth octant ... ... ... ... | 29·744 | — |

In order to compare these results with those of Mr. Schubler, we must remember that, as a general rule, a low barometer corresponds to rainy weather, so that the chances of rain should increase when the mercurial column is low, and decrease when it is high. It appears from the preceding table, (if we are at all to take into consideration the very slight variations recorded in it,) that, the maximum of rainy days should fall at the second octant, and the minimum at the second quarter, which agrees with Mr. Schubler's results in page 384.

The mean height of the barometer at Viviers was,

At perigee ... ... 29·714 inches
At apogee ... ... 29·753 „

Whence we should expect the number of rainy days to be greater at perigee than at apogee, which again agrees with Messrs. Schubler and Pilgram: see page 386.

Since then Messrs. Flaugergues and Schubler arrive at analogous results, notwithstanding the geographical distance between Stuttgard and Vienna, and nothwithstanding the difference in the nature of the methods they respectively pursued; it is difficult not to conclude that, the moon *does* exercise an action upon our atmosphere, an action small indeed, but one which is *distinctly appreciable* even with the instruments in ordinary use amongst meteorologists. Let us now see whether we shall still come to the same conclusion from an examination of observations made in other places.

The very natural notion that, the moon would act upon the atmosphere exactly in the same manner at the first as at the last quarter, and also at new as at full moon, has hitherto led meteorologists, in all their discussions, to divide the four phases into these two classes only. Mr. Flaugergues shows that, in future, a different classification will be necessary; but for the present I must conform to old arrangements.

Toaldo found from calculations based on a long series of noon observations made at Padua by the Marquis Poleni that, the mean height of the barometer at quadratures exceeded that at Syzygies by ·018 of an inch.

By Mr. Flaugergues' observations we find the

| | | |
|---|---|---|
| mean barometric height at quadratures - - | 29·756 | inches. |
| Syzygies - - - - | 29·740 | " |
| Excess at Quadratures | ·016 | " |

Again from Mr. Bouvard's discussion of the Paris observations, we find mean barometric height at quadratures - - - - 29.787 "

| | | |
|---|---|---|
| Syzygies - - - | 29·760 | " |
| Excess at Quadrature. | ·027 | " |

Hence doubt and uncertainty are no longer possible*. The moon *does*, in this part of the world, exercise a very small action upon our atmosphere, an action which, slight as it is, can yet be distinctly traced by means of a great number of barometric observations. We have now to determine the nature of this action.

If the moon acted upon the gaseous substance which surrounds the globe in the same manner as she does upon the sea, viz. by the force of attraction; if she produced therein a daily double ebbing and flowing; if the hour of the atmospheric tide changed each day as does that of the ocean in accordance with the hour of the moon's meridional passage; we should then, in order to get at the total quantity of the moon's action, have to compare day by day the barometric heights corresponding to

* The mean results of a course of one year's observations, made at 9 o'clock each morning, by Messrs. Boussingault and Rivero, at Santa-Fe-de-Bogota, were as follows.—

| | | |
|---|---|---|
| At new moon, the barometer stood at | 22·129 | inches. |
| First quarter - - - - | 22·110 | " |
| Full-moon - - - - | 22·126 | " |
| Last-quarter - - - - | 22·134 | " |

These observations, although made in another continent, and at a height of 2900 yards above the sea, and although they were made at 9 A.M., instead of at noon, do, nevertheless, correspond with those of Mr. Flaugergues, in as much as they point to the last quarter as the period of maximum barometric height; but they differ in that they show a lower mean height for the quadratures, than for the *Syzygies*. A single year is perhaps too short a period for determining a question of this nature; and I have besides, some reasons for supposing that the lunar action, whose numerical effects we are now seeking, is less powerful near the equator, than in our climate.

(pardon the expression I am about to use) "high" and "low atmosphere," hitherto we have only discussed the observation of one single hour in the day, viz., of noon.

The moon at her syzygies passes either the upper or the lower meridian at noon. If, as from the extreme mobility of the air it seems fair to suppose, the maximum effect of the moon at each place coincides nearly with the meridional passage at that place, then the mean of all the noon observations made at the syzygies would be the mean barometric height of high atmospheres.

It would seem that, on any given day during a lunation, the interval between high and low atmosphere should be about six hours, just as it is between high and low water. Therefore, the noon observations made on the days when the meridional passage is at six o'clock in the morning, or at six o'clock in the evening, in other words the noon observations made at the quadratures, would give the barometric heights at low atmosphere.

Thus we see that a comparison between noon observations at syzygies, and noon observations at quadratures is, in fact, a comparison between high and low atmosphere.

It will no doubt be remarked that I have not yet mentioned in what way a state of high atmosphere will shew itself, and I shall be asked whether a high or a low barometer is in such case to be expected. My answer is, this question need not at present be decided, it will be sufficient for the purposes of the argument on which I am about to enter to point out that, if the lunar action upon the atmosphere were the same as that upon the ocean, in one word if it were attraction, then the observations at the two syzygies respectively would give identical results, as would also those at the two quadratures. A cursory glance at the table, page 436, shows that these conditions are not satisfied. The inequalities of atmospheric pressure pointed out by these observations must therefore arise from some cause different from that of attraction, from some cause whose nature is as yet unknown, but which is certainly dependent on the moon.

This result of our enquiry is one of great importance. We will seek for further proofs of its truth.

By virtue of an action which is evidently connected with the position of the sun, there is a daily fall of the barometer between the hours of 9h. A.M. and noon. This fall, which is a part of that oscillation known by the name of diurnal variation, is in Europe often obscured by accidental fluctuations; but the mean of a very few day's observations will always bring it to light. Let us then consider whether its amount should be the same at syzygies as at quadratures.

In order to fix our ideas, we will for the present suppose, that at high atmosphere there should be a rise in the barometer. Were we to make the contrary supposition, we should arrive at precisely the same conclusion.

At syzygies, then, the height of the barometer, in as far as it depends upon atmospheric tide, reaches a maximum at noon, and therefore this

height will be continually increasing between 9 A.M., and noon. During this same interval, however, the diurnal variation is producing an opposite movement in the mercury; therefore the whole effect observed, will be the difference between some two numbers.

At the quadratures, that portion of the atmospheric pressure, which depends upon the atmospheric tide, reaches a minimum at mid-day; and therefore the barometer will on this account continue to fall between 9 A.M., and noon. But it is also falling by virtue of the diurnal variation, and therefore the whole effect observed, will be the sum of the same two numbers as before.

The sum of two numbers exceeds their difference by twice the smaller number. In this case, the smaller number is that portion of the height of the barometric column, which depends upon the atmospheric tide; if therefore we take, first at the quadratures, and then at the syzygies, the difference between the barometric height at 9 A.M., and at noon, the first of these differences will exceed the second, by twice the effect which three hours of an atmospheric tide has produced. This effect may be considered as half that of a whole tide. This principle is applied in the following calculation.

Mean height of the barometer at Paris, for twelve years observations:—

| | | | |
|---|---|---|---|
| Quadratures | 9h. A.M. | 29·805 | inches. |
| | Noon | 29·790 | ,, |
| | Difference | ·015 | ,, |
| Syzygies | 9h. A.M. | 29·776 | ,, |
| | Noon | 29·763 | ,, |
| | Difference | ·013 | ,, |

These two numbers only differ by ·002 of an inch, a quantity much smaller than the possible errors of observation.

That portion of the atmospheric tide, which is produced by the same causes, and governed by the same laws as the oceanic tide, is therefore *inappreciable*. And thus, we are brought a second time to the conclusion, that, those changes in the barometer, which correspond to changes in the lunar phases, are the effects of some special cause, *totally different from attraction*, whose nature and mode of action are yet undiscovered.

---

ORAL TRADITIONS OF THE CINQUE PORTS.—*By Capt. K. B. Martin, Harbour-Master, Ramsgate.*

(Continued from page 380.)

IN thus reviewing the past, we hope to elicit enquiry, persuaded as we are from our own experience, in our own particular locality, that great

mistakes have been made in the records of the Cinque Ports, by inattention to geological changes. These changes are slowly, but surely marching on, and what are we to anticipate for the future. In the year 1838, I published a pamphlet, "On the necessity for harbours of refuge, and their proved utility in that part of the British Channel, called the Narrows, carefully selected from original and official documents, and addressed to the merchants, shipowners, and underwriters, of Great Britain." We see no reason to alter our opinions therein expressed. Dover only remains of the once famed Cinque Ports, and Ramsgate occupies the place of the once favoured ancient port of Sandwich. Its estuary is filled up, and according to the received opinions of the most eminent engineers, Hastings, Romney, Hythe, and the rest, as harbours of refuge, are irrecoverably gone. Dover can and will become to the roadstead at Dungeness, what Ramsgate is to the Downs, and that will be a great point gained. One more efficient harbour of refuge between Dungeness and Spithead, for the average class of merchantmen, would be a national boon, as we cannot expect in the course of things, that wars are at an end for ever.

Our large class men-of-war will not require a harbour, they never did do so, but flotillas of steam gun-vessels for protection against invasion would, and they are most effectual protectors under such circumstances. Fifty heavy guns in small detached vessels, at equal distances would have a fifty gun frigate at vantage, she being the radii upon which all their shot would plunge, while her broadside must be brought to bear upon an extended line, and probably much of its effect lost in the intermediate spaces; they keep out of the deep water, also too near the shore for bringing them to close quarters. In every point of view, it must be a matter of regret for any country to lose its available harbours. The South-east coast of England has great *natural advantages* for the construction of harbours over the opposite shores of France and Belguim, and it would be a national sin to neglect it. What may be done, it is the province of the engineer to determine. What has been done in one solitary instance upon our coast, it was the object of the before mentioned phamphlet to shew.

When the Oral Traditions of the Cinque Ports were prepared for the amusement of friends, there was no desire that they should appear in print, as they did in 1832, and as suggested by several members of the Antiquarian Society at the investigation of my kind friend, then, the deputy-keeper of State Papers. Since that time, their republication has been repeatedly solicited, with such additions as might present themselves, and as time passes on, fresh proofs continually arise to strengthen my convictions, as to the geological changes corroborative of the traditions of our ancestors.

They now appear a second time under similar circumstances, and by the solicitations of those who in the pursuit of intellectual amusement, desire to place the researches of the geologist and antiquary upon a fair footing; the one may be termed the natural, the other the artificial records of the pasts.

Beneath the massive granite of the obelisk which stands before me, are safely deposited in a glass box, hermetically sealed, the finest specimens of gold and silver coins of the present age. Should they be found ten centuries hence, will they afford even an outline of Ramsgate at the time of their consignment to the rocky base beneath the platform of masonry. Will it be imagined that headlands of chalk, projected beyond its parallel when it was erected, upon which the crested wave, broke with every flood which laved the shore? If, present cause and effect continue, Ramsgate then will have become a sandy peninsula stretching into the sea upon a low flat shore, for as its cliffs recede, the muddy flats of Sandwich advance, and the marsh meadows will be enlarged and extended, its much admired pier (if not continually renewed) will long 'ere that have crumbled into dust. It is not yet a century since it was commenced, and in many parts the Pholas has honeycombed its foundations. Such are the boasted works of man contrasted with the enduring monuments of creative wisdom, therefore, in the investigation of his antique remains it is well to enquire what were their past associations in a geological point of view.

When Denon, discovered a fertile soil, at the base of the Great Pyramid, many feet beneath the desert waste of sand which surrounded it; he concluded, that, as inundations had covered the whole of that immense tract, and many philosophic men, did not hesitate to believe those mysterious structures to be antidiluvian, and the sands which have encircled their base, to have been deposited during that awful catastrophe, when "a shoreless, ocean tumbled round the globe." This was indeed visionary, but it is one among many proofs of the uncertainty of human conclusions, as to the relics of the past.

When we contemplate recent discoveries in America, the mausoleums of thousands, to which no clue can be obtained, we may well shake off all pedantic opinions, as to the changes which are taking place about and around us. We should humbly compare the corresponding features, which the different sciences present in order to make up a whole, and although we may not prove to demonstration, the opinions we advocate, we may, by shewing their inherent probability, improve our own mental capacities, and assist others in the development of their researches, and investigations.

*To be concluded in our next.*

---

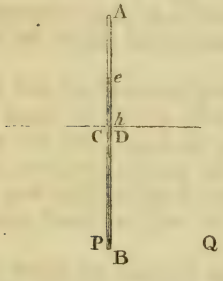
## Berthon's Patent Perpetual Log.

[Extract of a paper read before the Royal Society in January last.]

Many attempts have been made in the last few years, with more or less success, to measure the velocity of ships, by the resistance exerted against the orifice of a pipe, of which the lower end is immersed in the water. In most, if not in all these attempts the aperture has been furnished with a funnel which is not only useless and inconvenient, but if it had

any effect at all would tend to interfere with the true statical nature of the instrument.

The great defect in all instruments of this kind hitherto produced has been the employment of a single column only, because it is necessarily affected by many disturbing causes, such as alteration of draught of water, list of the vessel, pitching, rolling, &c. And the arrangement explained in the sequel, is made to eliminate or compensate all disturbing causes whatever, and produce an instrument to shew the speed and true direction of the motion of ships and vessels through the water without any operation or trouble, readily and correctly. The elementary principle of the measure of velocity now adopted is thus explained.




Let A B, in the annexed figure be a tube open above, closed below, partly immersed in a vertical position beneath the surface C D of a fluid: near the lower end is an aperture of which the axis is in an horizontal direction, P Q. The fluid will rise within to the level C D, when there is no relative motion between the fluid and the tube. But if, when the tube is at rest, the fluid move in the direction Q P, the force of the current against the aperture at P will increase the pressure within the tube and raise the fluid to some height $e$, such that the weight of the column $e$ D, or $h$, is equal to the increase of pressure acting at P. Thus the column $h$ will be an index of the velocity of the fluid. The same effect will take place also if the fluid be at rest and the tube be set in motion in the direction P Q; $h$, in this case will indicate the velocity of the tube. The value of $h$, for any given velocity is deduced from the common formula expressing the velocity of falling bodies.

When a fluid falls through a vertical pipe from a cistern of indefinite area, its velocity is expressed by the equation $V = \sqrt{2\,gh}$, friction and the imperfection of the fluid not being considered; thus we have a vertical current through the pipe of which the velocity varies as the square root of the height of the column.

Now, suppose another current to be forced against the orifice of the pipe upwards so as to destroy the motion of the downward current and bring the fluid within the tube to a state of rest. It is clear that the velocity of this second current must be exactly equal to that of the first. Therefore the expression that is true of the one is true of the other also. And recurring to the above figure, the velocity with which the tube A B moves is the same as that with which the column $h$ tends to fall.

Therefore as $V = \sqrt{2\,gh}$

$$h = \frac{V^2}{2\,g} = \frac{V^2}{64.38}$$

This expresses the height in feet for any given velocity.

It will be observed that the above expression is not strictly true in practice as regards the motion of fluids through pipes; 1st on account

of friction, 2nd because of the imperfection of fluids; but in the present case the deduction from it is perfectly true, because it is a statical result; the motion being uniform, the water within the tube is at rest, and friction ceases. Also the imperfection of the fluid produces only a question of time, retarding slightly but not altering the effect.

Such is the elementary principal of the "Log", which might require no modification if the vessel were always upright, moved in smooth water and never altered her draught; but none of these conditions can be maintained at sea.

1. It was necessary to have the column $h$, always vertical; therefore the inventor has suspended the indicator on gimbals, or an universal joint with a flexible communication.

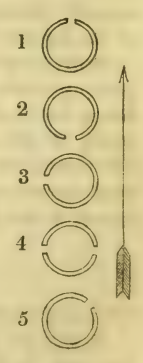
2. The column of water $h$ would be so long at high velocities that it could not conveniently swing on board ship, therefore he has substituted an equivalent of mercury, for the column of water raised above the sea level.

3. Any pipe *fixed* below the bottom of the ship or elsewhere will not only be liable to injury, but as its aperture will always be fixed as regards the vessel, (*i.e.* the axis of it parallel to the keel,) this will not receive the maximum resistance; therefore in the present invention the tube is made to pass into the water through a socket and stuffing-box, in which it can be raised and lowered at pleasure, as well as turned round to the true direction of motion.

4. The indicator being furnished with a scale to shew the speed the zero point would vary with the draught of water; therefore in the first experiments a sliding scale was used and set according to the position of the water-line.

Still the list of the vessel and the rolling and pitching motions produced disturbances which could only be overcome approximately, by an allowance for the former and various contrivances for the latter, such as limiting the supply of water and making it filter through a dense mass of sponge, &c., constricting to a fine capillary orifice the lower part of the tube through which the mercury passed, so as to exclude the extremes of rise and fall, and maintain an approximate mean.

Let 1, 2, 3, 4, 5, in the margin, be transverse sections of the tube in the water cut through the port or aperture: suppose them to move in the direction of the arrow, say at 13 knots per hour.




The effect of No. 1 was correctly calculated before trial, and is a positive or lifting force of about 4lbs. to the square inch,

or $f = 4$ (No. 1.)

It was expected that in turning the tube round through 180 degrees or right aft, there would be a negative or depressing force, but its value could not be determined before trial. Experiment proves that in this case

$f = -4$ (No. 2.)

It might reasonably be supposed that the zero point where $f = 0$ would be the mean between the points where $f = 4$ and $-4$, *i.e.* at right angles to the line of motion. But on

experiment this point was found to give the greatest negative force of all and

$$f = -6 \text{ (No. 3.)}$$

Few would expect that opening another aperture on the opposite side would diminish, this negative force, but upon trial it was found that in this case

$$f = -4 \text{ (No. 4.)}$$

The discovery of the zero point was a matter of experiment and it is found to depend upon the form of the aperture where

$$f = 0 \text{ (No. 5.)}$$

These improvements and modifications did not satisfy the inventor, and a few experiments led him to a much more beautiful arrangement, which, as it eliminates all disturbing causes completely, may be considered perfect.

When the aperture is of a rectangular form with its edges cut thin, and its longer sides parallel to the axis of the tube, the zero point is at the angle of 58 degrees.

But if the aperture be round, the zero point is at the angle of $41\frac{1}{2}$ degrees. Nor does opening another aperture at the same angle on the other side affect it.

Hitherto no satisfactory explanation has been given of the negative force, *e.g.* that it is the greatest at right angles to the line of motion. One was that at that point the relative velocity of the tube and water is the greatest—the back current flowing round the sides of the tube with a velocity equal to that of the tube forward. Thus if the speed of the vessel be 1, the relative speed of the tube and water will be 2, at any point at right angles to the line of motion, and that in consequence of this relative velocity this point is relieved of some of the pressure of the superincumbent mass, when the weight of water within the tube produces the depression. But two circumstances appear to be fatal to this explanation. The first is, that as the back current must pass with equal velocities round both sides of the tube, the opening of the aperture on the other side as in No. 4, should not at any rate diminish the result, but we find that it does reduce it from —6 to —4.

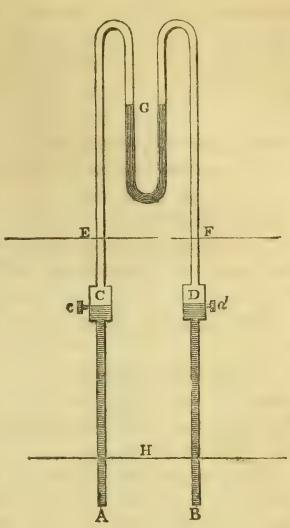
The second is that if a small rod, only one-third the internal diameter of the tube be placed within it concentrically, it almost destroys the negative force, and in some cases, as when turned aft, it seems to convert it into a slightly positive one; though such a rod does not affect the positive force when the port is turned forwards.

The discovery of the negative forces and the zero points led to the arrangement of the double acting or compensating instrument.

The much desired compensation is effected, by using any two of the above forces, made to act upon the two ends or surfaces of a column of mercury in a bent tube. The following will explain their actions; for instance:—

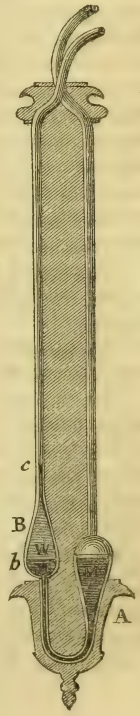
Let A, and B, be two tubes, projecting a few inches below the ship's bottom, their lower ends A and B, being closed. A, has an aperture in the line of motion, while the aperture of B, is at 41° 30′. C, is an air-vessel, communicating with A, and *d* a similar one communicating with B. E, G, and F, are two air pipes, connected with the air-vessels respectively, and fastened to the two ends of a bent glass tube, which is half filled with

mercury. Now, when the ship is at rest, if the small air valves C, and D, be opened, the water will rise to these points in the two air-vessels C, and D, compressing the air above; if now the air valves be closed, the pressure in these air-vessels will be always equal each to each; and consequently the pressure conveyed along the air pipes, E, and F, will affect the two surfaces of the mercury equally, whatever be the immersion. Let us call this pressure upward the statical force, and the pressure resulting from resistance, the dynamical force. Then, whatever be the direction of the aperture of the tube, the statical forces are always equal in the two air vessels, whether in motion or at rest, but not so the dynamical force, which acts at A, but not at B, because the aperture of B is at the zero point.




The consequence is that the pressure is increased in the air-vessel C, but not in D, which depresses one surface of the mercury in the tube, and raises the other to heights, varying as the squares of the velocities; and thus all vertical forces are compensated or eliminated, and the dynamical one alone is registered.

The annexed figure represents the glass and frame of an improved indicator. The only inconvenience found in the use of the simple column of mercury is, that at very low speeds the graduations are very small indeed. We seem to want a fluid of a medium density between mercury and water, for while water, or even spirit is most desirable to show *low* speeds, it is inadmissable in high speeds on account of the great length of column. Sulphuric acid might be used, but it is dangerous, and also inconstant in specific gravity,




The improved indicator with two conical bulbs supplies the want completely, combining the advantages of a water range of scale for low rate of sailing with the shortness of the mercurial one for high velocities. A and B are two conical bulbs; A nearly full of mercury which rises also in B to the level *b* when the vessel is at rest. Super-imposed upon the mercury in B, is coloured water W, up to the point *c* which is the zero point of the scale. Now the pressure due to velocity acting in A forces down the mercury in that bulb, and up in B, forcing upwards the water into the index-tube, where, as the sectional area is only about $\frac{1}{10}$th of the largest part of the bulb it rises ten times as high. But as the speed increases the mercury falls lower in A and rises higher in B,

the surfaces of the mercury constantly decrease, while that of the water in the index-tube remains the same. Thus we have two columns, one of mercury, the other of water; the latter rising the most rapidly at low speeds, and gradually diminishing its proportional ascent till the mercury reaches the point *c*, when its further rise will be equal to that of the mercury only.

In practice the two tubes are conducted separately into one pipe below, which is divided into an upper and lower chamber, for the two forces; and this is a very advantageous arrangement, because it not only makes one hole enough in the ship's bottom, but the ports of the two chambers are always in the same relative position. It is also found more convenient to use a zero chamber instead of a negative one.

The Leeway, or rather the true course of the vessel is found in two ways.

1. *Hydrostatically.*—It is clear that the maximum elevation of the mercury can only be when the plane of the aperture is exactly at right angles to the line of motion. So if the ship be moving right ahead the axis of it should be parallel to the keel; but if she goes at all to leeward this will not be the line of the greatest resistance, and the tube is turned round to the lee bow, by the action of a vane (described hereafter), in the direction of the true line of motion; at the same time an index finger connected with the vane, by which the tube is turned, moves over a horizontal circle and points out the angle between the real and apparent course of the ship.

2. The leeway is thus shewn *mechanically*, and is self-acting, for whilst the vane always keeps the ports in the right direction it moves the rod and index needle and points out the true course of the ship.

The first experiments with the double acting indicator were made with the tubes full of water which rested on the mercury. This was found to soil the surface and the glass, so that now the water is never allowed to rise above the water line in the two air-vessels; and from these the pressure of the water is communicated to the mercury through an intervening column of air, which though expansive, does not affect the result, because any contraction or expansion acts equally upon both limbs.

We now annex a description of the Perpetual Log represented complete in the figure attached.

AA, a hollow brass socket nine inches long, screwed into the bottom plate if the ship be of iron. If the ship be of wood it should pass through the kelson to the water as shown in the figure. This socket is bored from end to end and has a stuffing box on the top, and a stop-cock *a* near the middle.

B, a brass tube $\frac{5}{8}$ths of an inch in diameter, which passes through the socket into the water. It is divided into two chambers at the lower end, and from these proceed the two pipes with the apertures *bb'*; C'C are flexible tubes uniting the pipes with the fixed pipes EE and E'E' and conveying the water from the chambers to the air vessels FF', where it reaches

about the middle, the upper part containing air. GG, G′G′ are air pipes which transmit the forces received in the air vessels through the flexible tubes HH′ to the indicator.

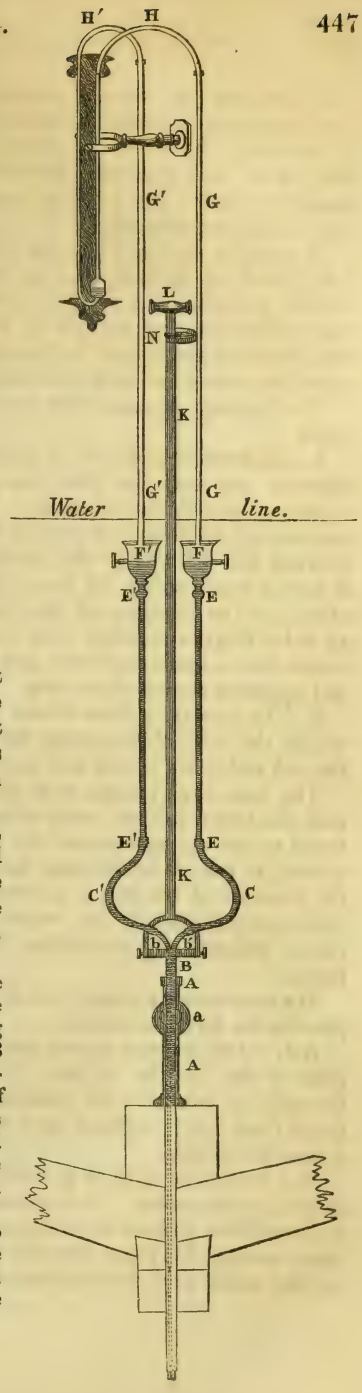
KK, a rod with a shackle *b b* below to grasp the head of the tube B, and a handle L above to move the tube up and down, as well as to turn it round. Below the handle is an index finger moving over a horizontal segment N to show the leeway.

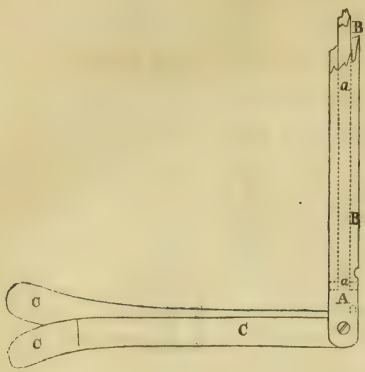
Attached to the bottom of the tube with a joint is a vane about eight inches long, which acted upon by the water always keeps the tube in the right position. It is made of the same size as the tube, so that the whole is drawn up or let down at pleasure.

We have added to the annexed figure, shewing the whole log, an enlarged sketch of the indicator carrying the scale graduated to miles and parts; the velocity being indicated by the height to which the fluid rises.

In the following page is a section of the lower part of the tube enlarged. A, is the lower or negative chamber, communicating with the tube E′, by the internal tube *a*, B the upper or positive chamber communicating with E. The vane ccc is composed of two slips of hard brass about nine inches long, rivetted together at one end, and when not compressed spring apart at the other, and extend a piece of vulcanized rubber like the web of a duck's foot.

When these two slips are forced into the water through the large lower tube they open and extend the web which by the action of the water turns the






vane up abaft the tube, and the action of the water on the sides of the vane keeps it in the line of motion.

The vane first used was a hollow piece of tube flattened at the sides. It was suggested by Capt. James Goodridge, of the S. W. Company steamer *Courier*, to whose great intelligence and untiring perseverence the inventor is greatly indebted for the success of his experiments in that vessel, by the considerate and kind permission of the company.

---

The recent trial of H.M.S. *Dauntless* was the first occasion of placing the perpetual log in a *screw* steamer. The inventor anticipated that the propeller would affect the instrument in excess, but could not predict the amount. The distance of the tube from the stern was about 45 feet, but even at that distance the excess of effect was *nearly equal to the slip of the screw* being 13 per cent. more than the actual speed of the ship, while the slip of the screw was 14 per cent. Thus the indicator gave the speed of the screw very nearly and not that of the ship. This clearly proves that there is a strong back current drawn aft by the screw under the ship's bottom: how far this current extends is not yet proved, but it is expected not beyond the midship body. A second instrument complete is being fitted at the step of the foremast, where, without doubt, the true resistance will be obtained; and by comparing this second indicator with the other at the same time, and at various speeds some interesting results are likely to be obtained respecting the screw propeller.

The instrument has recently been placed in the little *Bee*, steam tender to H.M.S. *Excellent*. All the trials in her over the measured mile have been very satisfactory; as also a set of 12 experiments in the successive reduction of the steam pressure, taking a pound off the boiler at each experiment; in every case the reduction of speed shown by the indicator was correct.

The compound indicator, having, conical bulbs, and using mercury and water balanced against each other, is found in the *Bee* admirably adapted to the purpose of showing minute changes of speed. The 100th part of a knot can be readily perceived. The inventor recommends this form of indicator for all vessels; it is longer than the other, but not inconveniently long, about two feet. He has also applied with complete success a *moderator* to the instrument, a very simple contrivance by which the indicator is made to denote the *mean* speed of the ship for any desired interval of time.

## Turkish for Tars, No. V.—*By Mahmouz Effendi.*

(Continued from page 259.)

In the May number of the *Nautical* there was merely space enough for the first half of the alphabetical vocabulary we had penned for our fourth number of *Turkish for Tars*, the second half of which we now subjoin without further observation in this the number for August.

| *Turkish.* | *English.* |
|---|---|
| Leïen | Wash-basin |
| Lahana | Cabbage |
| Lazim | Necessary |
| Liman-Reisi | Port-Captain |
| Londra | London |
| Louleh | Pipe-bowl |
| Mah | Moon |
| Mahmouz | Spur |
| Manghal | Chafing-dish |
| Mashè | Tongs |
| Mektoub | Letter |
| Memleket | Nation |
| Menzil-hanè | Post-station |
| Mersa | Anchorage |
| Mesdjid | Mosque |
| Mikhlat | Nosebag |
| Mil | Million |
| Nallamak | To Shoe |
| Nalbend | Farrier |
| Nar | Pomegranate |
| Neh | What |
| Nemir | Leopard |
| Nesteh | Thingumbob |
| Oda | Room |
| Odoun | Wood |
| On | Ten |
| On-bir | Eleven |
| Otouron | Sit down |
| Ot | Herb |
| Otouz | Thirty |
| Oulak | Kid |
| Oun | Flour |
| Oudjouz | Cheap |
| Ouzoum | Grape |
| Ova | Plain |
| Padisha | Sultan |
| Palan | Saddle |
| Pambouk | Cotton |
| Penir | Cheese |
| Pek | Very |
| Pershembè | Thursday |
| Peshkoun | Table |
| Piadè-askeri | Infantry |
| Perindj | Rice |
| Portugahl | Orange |
| Poust | Skin |
| Rahat | Quiet |
| " | Tranquillity |
| Raki | Spirit |
| Ravend | Rhubarb |
| Razianè | Anise |
| Rehzenlik | Brigandage |
| Roum | Rum |
| Rouz | Rice |
| Saka | Water-carrier |
| Sais | Groom |
| Saly-guni | Tuesday |
| Sai-yaghy | Butter |
| Sekiz | Eight |
| Seksan | Eighty |
| Sakiz | Mastic |
| Sarou | Yellow |
| Sertlan | Hyena |
| Shehr | City |
| Shemsieh | Tent |
| „ | Parasol |
| Sheitan-Koushu | Bat |
| Sheker | Sugar |
| Sherrab | Wine |
| Shirlighan-yaghy | Oil of sesame |
| Shisheh | Bottle |
| Shiseh | Sword |
| Shookur | Thanks |
| Sidjak | Hot |
| Syghyr-ety | Beef |
| Sini | Table |
| Sirkeh | Vinegar |
| Sofra-peshkeri | Table-cloth |
| Soghan | Onion |
| Soouk | Cold |
| Soud | Milk |
| Su | Water |
| Suluk | Leech |
| Sunguer | Sponge |
| Suridji | Courier |
| Suru | Flock |
| Syz | Without |
| Tabia | Battery |
| Tambaccu | Tobacco |
| Taouk | Fowl |
| Tavshan | Hare |
| Tchabouk | Make haste |
| Tchaganos | Crab |
| Tchai | River |
| " | Tea |
| Tchakal | Jackal |

| *Turkish.* | *English.* |
|---|---|
| Tchar Shembè | Wednesday |
| Tchatal | Fork |
| Tcheuruk-oti | Sesame |
| Tchesmè | Fountain |
| Tchizmè | Boots |
| Tchirkin | Ugly |
| Tchivid | Indigo |
| Tchinar | Plane-tree |
| Tchentè | Tinder-bag |
| Tchoban | Shepherd |
| Tchorba | Soup |
| Teiyoun | Squirrel |
| Tenekè | Tin |
| Tensouf | Pastile |
| Tepsi | Plate |
| Terdjuman | Interpreter |
| Tessi | Porcupine |
| Tetrè | Gum-dragon |
| Tilki | Fox |
| Toutoun | Tobacco |
| Touz | Salt |
| Trapezè | Table |
| Uzengu | Stirrup |
| Validè-Sultaun | Queen mother |
| Vapor-guèmisi | Steam-boat |
| Var | There is |
| Var-mi? | Is there? |
| Yaban | Wild |
| Yaban-domouz | Wild boar |
| Yahourt | Cream |
| Yapak | Wool |
| Yar.. | Peak |
| Yarin | To-morrow |
| Yaresè | Bat |
| Yavash | Easy |
| „ | Mild |
| Yedi | Seven |
| Yetmish | Seventy |
| Yel | Wind |
| Yil | Year |
| Yol | Road |
| Yemish | Fruit |
| Yeni | New |
| Yer-elmasy | Potato |
| Yeun | Wool |
| Yirmi | Twenty |
| Yimurtah | Egg |
| Yokh | No |
| Yuz | Hundred |
| Yuruk | Wanderer |
| Zarff | Cup-stand |
| Zamk | Gum |
| Zeitoun | Olive |
| Zeitoun-yaghy | Olive-oil |
| Zindan | Prison |
| Zindandji | Gaoler |
| Zumrud | Emerald |
| Zugurt | Poor |

The utility of the above short and imperfect vocabulary may be quadrupled at least, by the meaning being borne in mind of the particles, *lu*, *ilé*, *syz*, and *lik*; take for instance the word "rahat" meaning "tranquillity," "repose" whence come

| | | |
|---|---|---|
| Rahat-lu, | literally signifying | tranquil. |
| Rahat-lik | „ | tranquillity. |
| Rahat-ilè | „ | with tranquillity. |
| Rahat-syz | „ | without tranquillity, *i.e.*, restless. |
| Rahat-syz-lik | „ | Restlessness. |

And the verb is also thence formed (from "rahat,") by the addition of "lanmak" as "rahat-lanmak" "to take repose." A mere glance at the above example, shows that "lik" answers to the English termination "ness" etc., as "*tazè*," "fresh"; "tazèlik," "freshness"; "guzel," "beautiful"; "guzelik" "beauty"; "*ilé*" signifies "with" and "syz" "without"; and "lu" speaks for itself in the following examples, as "Londra" "London," "Londralu," "Londoner"; "dugum," a "knot," "dugumlu," "knotty"; "denyz," the "sea"; denyzlu," "maritime," "at" a "horse"; "atlu," a "horseman."—

We stated at page 77, that the real *Turkish* language, (not the Arabic or Syriac spoken in parts of Turkey,) spreads much farther in the East than is generally imagined by untravelled Europeans. We remarked that in addition to being so in other localities, it is the leading

tongue from the Black Sea in the North, down *towards* Baghdad in the South, and we may now, therefore, quote a passage from Rich's Koordistan which settles the exact point, whereat, Turkish as the common language of the people ends, and where Arabic begins, and just to the eastward of that point Persian prevails. Writing in March, 1820, from the large village of Adana, or Adana-Keuy ("Keuy" being the native word for "village,") Rich says—"Our quarter-master, or *Konakjee*, had taken a house for us, where a great number of silk-worms * were at work, but the smell so affected my head, I was obliged soon to leave it for a garden, where we pitched a tent and were very comfortable. The people of this place, Adana, are of the Turcoman race, and are composed of Sunnis, Shiahs, and Tcheragh Sonderans. † *Here at Adana the Turkish language terminates*, all beyond towards Baghdad being *rab* fellahs, or peasants. March 31, 1820. Thermometer 82.°"—These passages are in the second vol. of Rich, page 286, and the village of Adana, as set down in Rich's map, is distant but some 65 miles north from Baghdad; and Baghdad, even as the crow flies, is a 1000 miles from Constantinople, and 1,500 miles by the route, once ridden by Mr. and Mrs. Rich.

After having written so far, we trust the reader will permit us to throw down our pen and to call for our customary glass of grog. Have we not fairly earned it ?

* *Ibrishim Kourty* or *Ipek Kourty*, in Turkish.

† "Ismaelians" or "Extinguishers of the Light." They are *not* Mohammedans, see Rich's Koordistan vol. 1, page 26, and vol. 2, page 284, where they are also called "Ali Ulahees." This "Secte des multipliants" is denominated *Tcheragh puf* in Kieffer's Dictionnaire Turc-Francais, vol. 1., page 219, which compound word is there laid down as signifying "qui éteint la lampe." And it is then added "on les appelle en Turc "*Moun-Sundrum*," éteigneurs de chandelle, et on leur fait une guerre à mort."

(*To be continued.*)

---

## Admiral: *the Etymon or true original of the word; with the various appellations thereof.*

The *Glossographists* and others, have digg'd very deep to come at the *root* of this word; some are of opinion that the word *Admiralius*, is derived from the *Greek* ἁλμυρὸς *Salsus*, or from ἅλμη *Salsugo*, or ἁλμηεὶς *Salsigo*, or from Ἀλμυραζκος κῆ Ἀλμηρὰς *quasi Salmacidus et Salsus, á Salsugine Elementi cui imperat:*[*a*] from the saltness of that element where properly his authority and jurisdiction doth reside;[*b*] *vel quod in salso mari suum exercet imperium.* But this not seasoned

*a*] Lupus de Magistr. Paul. Emil. Hist. de Fran. Guaguin. &. Morisot. lib. 2. c. 3. de Orbe Maritimo.

*b*] Morisor. ib. lib. 2. cap. 7.

with sufficient reason is held but as an unsavoury derivation, from the great improbability that any in imposing of *names* should quit the thing itself, wherein the Denominated is most inherent, and flie only to the more remote qualities thereof; as if you should say that the *Admiral in rebus Maritimis*, were rather *Salinarius* then *Marinarius*, as is truly observed by the learned Sir *Henry Spelman*.[*c*] So that if you offer this derivation, though *cum grano vel mica Salis*, it will not pass.

Therefore, others are of opinion that it is derived from the *French* [*Ameral*,] signifying an high officer or magistrate in sea affairs; but this is as if you should say, (*to keep to the metaphor of a liquid element*), That ice dissolved is the mother of water, rather then water frozen is the mother of ice; no doubt but [*Ameral*] in *French* now signifies such an high officer or magistrate; but where was that *French* word [*Ameral*] when the office of *Admiral*, by other appellations almost *homophonous* to that, was in being, but not in *France?* That office by other names appellative not much dissonant to this of *Admiral*, was anciently known in the world, when no such thing in *France;* for the *Romans* themselves anciently had not these *Admirales* (for so then called) till *Constantine*, in whose time *isti Admirales Magistratus creati sunt;*[*d*] that is, among the *Romans;* for they were known to other parts of the world long before *Constantine* the *Great*, *Anno* 330. So that it may be truly said that this high officer or magistrate in sea-affairs is in the *French* now rendred by the word [*Ameral*]; but not that the word *Admiral* is thence derived.

Therefore others conceive it is derived from the *Saxon Aen Mere eal*, that is, *over all the sea.* This passes for a current derivation and exposition of the word *Admiral* with us; possibly because it sounds both so *prettily* and *pithily*, for we are now as apt as our neighbours t'other side the water to be *alamoded* as well with fine words as other vanities. Yet this being a derivation of our own *Generation*, it may not be much controverted, specially for that others as well as those of our own nation, have acknowledged the word *Admiral* to be derived from the *Saxons*, with whom the word [*Hadmiral*] doth signifie *Præfectum maris.*

Others there are who will have it derived from neither of these, but from the *Sarazens*, [*Admirantes*] for that in the infancy of that empire there were *Quatuor Admirantes, hoc est, Militum Præfecti, qui terra marique pugnarent.* [*e*] But some think that this opinion hath no farther truth then in appearance only; for that the *Sarazens* had no further use of that office then in the *Holy Wars.* Therefore those *ancients* that derive the word much higher then the time of the *Holy Wars*, will have it drawn rather from the *Greek* then *Arabick*; so that they seem to come nighest of any to the truth, that derive the pedegree of this word *Admiral* both from the *Greek* and *Arabick.*

*c*] Spelm. Gloss. verb. Admiral.

*d*] Petr. Cothereau. in suo Schedul. Magistr. Civil. tit. de Præsibus Provin. & Purpur. in l. 1. col. 30. 9. Exemp. Dig. de Offic. ejus cui mandata, &c. Cassanæ in Catalog. Glor. Mund. part. 9. Consid. 16.

*e*] Morisor. Orb. Marit. lib. 2. cap. 3.

For that *Amir* in the *Arabick* signifies *Princeps, Præfectus;* and ἅλιος in the *Greek Marinus*, both which amount to *Admiralius*, or rather to *Amiralius, quasi Princeps vel Præfectus Marinus*. And this carries the greater probability with it, for that, as the said Sir *Henry Spelman* observes, such *bilingue* compounds were much in request at the court of the Eastern Empire; and it seems yet the more probable, for that in *Homer* we find the word ἅλιος *pro Rectore maris*, or governour of the sea; yea, and for *Neptune* himself. Wherefore *Amir*, otherwise *Emir*, also *Amira, Amiræ, Amiras,* and *Amiradis*, do signifie *Regem, Principem, Eparchum*, and *Præfectum;* also with the *Turks* and *Sarazens*, it sometimes signifies their *Great Emperours*, and sometimes their *Proto-symbol* or *President* of the *Senate*. And so the *Arabick* [*Amira*] or the *Hebrew* [*Amar*] that is, *dixit, edixit: illud præcepit, imperavit;* from whence [*Mamurem*] that is *præceptum, edictum;* and [*Amirom*] that is *Dux, Capitaneus, Imperator, Præfectus*. And so Ἀρχων or Ἀρχος in the compound; from whence [*Alamiro*] (with the article *al*) ὁ χλίαρχος, the chief captain. And from hence the *Spanish* [*Almirante*] or according to their ideom, *el Amirante*, and thence by turning *l* into *d* the word *Admirans* by some hath been used for *Admiral;* whence others also, though very corruptly, yet by reason of their being so consonant, have given it other such like names, as *Admirabilis* and *Admirandus;* which words if compared with the former, will, in the sense of such as have so express'd themselves, be found to be rather *Syncatagorematical* in their signification, then *Homophonous* in their accent or pronunciation: and therefore the said *Archiologist* conceives that the word [*Amiratus*] (which in *Malmsb*, is so often used for *Admiral*) is not thence derived, but rather from [*Amiradis*] the genitive singular of the foresaid *Amiras*, by an exchange of *d* for *t*, as was usual; and adds, that the word [*Admiraldus*] is very legible in the antiquities of *Turpin* and *Rupert* or *Robert* the *Monk* [*f*] *quasi Al Amiradus*, that is, ὁ ἀμηᾶς, and by an *Apocope* of the letter *d Admiral'* [*g*] which others will have to be expressed by the word *Admirarius*. [*h*]

This high officer or chief Magistrate in marine affairs with us is styled the Lord High Admiral of *England;* with the *Greeks* Ἀμηρᾶς, ἀμηραῖος, ἀμηραλής; with the *Latines, Amira, Amiras, Amireus,*

Anno 1216. *in* H. 3. Matth. Paris, viz. *In the wars between the* Christians *and the* Sarazens *in the Land of Promise, That* John *K. of* Hierusalem *with Christs* Militia Castellanum ab equo stravit, & Admiraldum unum.

Admiraldum capio pro Centurione sive Capitanio, *says the Glossar. on that word, in that place. And the said* Matth. Par. Anno 1244. *in* H. 3. viz Potestas, Januæ, quem Admiratum vocant. *The Gloss. there*, viz. Ille Potestas, Podesta, sive Prætor urbanus, Nunc dierum Admirallü sive Thalassiarchæ munere fungebatur.

[*f*] *This* Rob. *the* Monk *was one of K.* John's *three Emissaries to* Miramulalim *K. of* Morocco, *to signifie his pleasure to him, how ready he was to resign his Kingdome.*

[*g*] Fragm. Hist. Aquit.

[*h*] Leon. Marsic. in casinens. Hist. lib. 3. cap. 44.

*Amiratus, Admirallus, Admiralis, Admirans, Admirandus, Admirabilis, Admiravisi, Almiramisi, Admiralius, Amiralius.* In the Eastern Empire, *Amerii, Admirantes;* also *Drungarius, Drungarius Magnus, Drungarius Classis, Drungarius Navigiorum, Drungarius mari Præfectus.* With the *Athenians* and others, *Thalassiarchus, Architalassus, Magistratus rei Nauticæ Jurisdictionem habens.* With the *Romans* there were *Duumviri Navales,* afterwards *Præfectus maris, Præfectus Classis, Magnus Dux Classis, Archigubernius.* With the *Spaniard Almirante, el Amirante, Adelantado.* With the *French, L'Ameral, Præfectus maris et Litoris, Custos Limitis Maritimi, Comes Litoris.* Besides these there are several other appellations of this one and selfsame high officer, consonant unto the *Ideom* of such nations and countries respectively, where this great office hath been constituted.

This word *Admirallius,* how it should signifie *Bellicosus* or *Victoriosus,* as *Mat. Paris* hints, [*i*] seems not easily to be resolved without a far strained notion; for, without doubt, of all the pre-supposed *Etymons* of that word, that which *Junius* gives, seems to be the most legitimate, that from the *Arabick* [*Amira*] *Princeps,* and the *Greek* ἅλιος *Marinus;* it being generally agreed, that this word is a compound of an exotick extraction, from two distinct languages or tongues; and therefore although *Gretserus* [*k*] be pleas'd to be displeas'd with this derivation thereof, yet it is supposed that others without the least hazard of Naufragating their art of Glossographie, may securely cast anchor and safely acquiese therein.

About Anno 1213. *when K.* John *sent* Thomas Herdinton, Ralph Nicholson *and* Robert *the* Monk *to the K. of* Morocco, *we read* Misit Nuncios ad Admirallium Murmelium, Regem Magnum Aphricæ, Marrochiæ, & Hispaniæ, quem Vulgus Miramumelinum vocat.

Matth. Par. in Johannem Reg.

Ita, sed satis Corrupte, Regem Moroccæ indigitarunt Nostrates. Sed Corruptius adhuc Roger Hovedin. Almiramisi sive Almiramimoli.

Hovedin. pars poster. in R. 1. pag. 381.

Drungarius Magn. Fragm. Ascript. Polybio.

[*i*] Matth. Paris in R. 1. Circa dies istos Rex de Maroch. potentissimus, quem *Mirabilem* mundi Vulgus, vel quod melius, Admiralium Murmulin, id est, Admiralium Bellicosum & Victoriosum nominavit.

Et An. 988. Otho. 3. Imp. German cognomin. *Otho Rufus,* iste cognominabatur Mirabilia Mundi.

Sistrid. Epit. lib. 1. p. 689.

[*k*] Glossar. in Matth. Paris in verb. Admiral.

---

## Collisions of Merchant Shipping.

*From the Shipping Gazette.*

105. *Report of the Schooner Earl of Devon, Mesten, of Penzance, from Rio Grande, arrived at Bristol March* 29:—28—Wind S.S.E., about 9 P.M.,

abreast of Mort Point, on the starboard tack, was a schooner ahead on the larboard tack, with squaresail set, bound down channel. Hailed several times, but got no reply; evidently, there was no look-out. As a last resource, and to prevent her taking us stem on, put up our helm. She struck us on the starboard bow, carried away our jibboom, cutwater, jib-guys, and spritsail-yard. Gave her name, the *Elizabeth*, of Fowey.—*April* 1*st.*

106. *Report of the Brig Earl of Leicester, Bullard, from Villa Nova, for London, off the Start, March* 28 *:*—March 14th, lat. 46° 30′ N., long. 11° 40′ W., spoke with the French brig *Auguste*, of Agon, from Cette for Cherbourg, with bowsprit gone and bow stove, and making water, having run foul of by some vessel, the night previous; kept company with him five days, and as the leak did not increase left him, in company of another French vessel, which had spoke with him the same day we left him.—*April* 1*st.*

107. *Sheerness, April 5th.*—The cutter *Galeed*, Christensen, from St. Michael's for London, put in here this morning, with loss of anchor and chain, bulwarks and stanchions, &c., carried away, having been in collision with a steam boat, and was run on the Oaze above the pier.—*April 6th.*

108.—*Ayr, April 6th.*—Yesterday morning, about 1 A.M., six miles west of Pladda Light, the schooner *Mavis*, of Wexford, arrived here from Ballina, was in collision with an American ship, outward bound, name unknown. The schooner had her bulwarks, taffrail, fore and main rigging on the larboard side, and foreyard, all carried away. The ship lost her jibboom and some of her canvas.—*April* 8*th.*

109. *Report of the Ship Brooksby, M'Ewing, of Glasgow :*—On the morning of the 5th, at 1h. 30m. A.M., off Ailsa Craig, Pladda bearing north-east, distant twelve miles, wind fresh from north-west, the weather thick and hazy, had starboard tacks on board, with a light in the rigging, was run into by a schooner (name unknown) on the larboard bow. The force carried away the headrails, jibboom, cutwater. and slued the figure-head to one side. The schooner's rigging and foresheet caught the anchor, and she swung round alongside of us. Part of the crew came on board, but went back to the schooner again; on cutting the foresheet of the schooner the vessels separated. No assistance was asked by the schooner; it was so dark she was not seen afterwards.—*April* 8*th.*

110. *London, April* 20*th.*—The *Augusta*, Barnett, from London for Auckland Islands, Jan. 18th, lat. 38° south, long. 37° east, was spoke by the *Lucille*, arrived at Mauritius. Mr. Barnett reports, that on leaving the English Channel, in long. 15° was run into by a barque, which carried away mizen-topmast, bulwarks, and stanchions, smashed the wheel, and killed the helmsman. It was very dark at the time.—*April* 20*th.*

111. *Plymouth, April* 19*th.*—Put in, the *Rowland*, from London for Quebec, with starboard quarter carried away, having been in contact with a vessel (name unknown), off Fowey, 18th inst.

112. Another report, 19.—The *Rawlings*, from Londonfor Quebec, in ballast, has put in with considerable damage to stern, mizen rigging, sails, &c., having been run into this morning, whilst in stays, by a ship off Fowey.—*April* 8*th.*

113. *Liverpool, April* 21*st.*—The *Lord Adolphus* arrived from Inverness yesterday, with loss of mainmast, fore-topmast, &c., and stern stove, having been in contact with an outward bound barque, off the Ormsheads.—*April* 22*nd.*

114. *London, April* 23*rd.*—On the 15th inst., at 2h. 30m. A.M., wind about S.S.E., fresh breeze, the *Placidia*, Henry, of South Shields, was run foul of by a brig (name unknown), when standing on starboard tack, abreast of Whitby.

The other brig had topmast and lower studdingsails set at the time, with mainroyal, &c., and from appearances, and the distance off the land, appeared to be a collier, bound to Shields. The *Placidia* had her jibboom, part of the bowsprit and gear attached, carried away.—*April* 23*rd.*

115. *Yarmouth, Norfolk, April* 22*nd.*—The barque *Asphalon*, Sharp, from Newcastle for Syra, came into these roads yesterday, with loss of stanchions and other damage, having been in contact in the Deeps on the 20th inst., with the brig *Brothers* of Arundel. It was very dark and thick, with rain, at the time of the collision.—*April* 23*rd.*

116. *Plymouth, April* 22*nd.*—Off the port, about 7 o'clock this morning, the schooner *Fairy*, of Yarmouth, bound up Channel, ran into the mackerel boat *Ocean Queen*, of Hastings, whilst at her nets, and carried away mainmast, tore her sails, and did other considerable damage. They passed on without stopping to enquire. or even to see whether she was sinking or not. Fortunately she is quite new.—*April* 23*rd.*

117. *Southampton, April* 28*th.*—The master of the brig *Brothers*, reports that he has been in contact with the barque *Asphalon*, of Newcastle, which carried away her figure-head and cutwater, and other damage; weather thick, with rain at the time.—*April* 29*th.*

118. *Pwllheli, April* 28*th.*—The smack *Marietta*, Thomas, of Aberystwith, was accidentally run down by the barque *Resolution*, Boulby, of and from Liverpool for Maranham, on the morning of the 25th inst., about 40 miles north-east of the Bishop's Light; it was blowing strong at the time from the south, with drizzling rain and thick weather. The *Marietta* being in a sinking state, the crew took to their boats, and went on board the barque, and were kindly received at 6 P.M,, of the 25th; afterwards went on board of the smack *Rose*, Cleverly, of and from Salcombe for Liverpool, and at 6 P.M., of the 26th landed at Nevin, in their own boats.—*April* 29*th.*

119. *New York, April* 17*th.*—The *Milton Carty*, arrived at Philadelphia from Port-au-Prince, was in contact with the British barque *Maria Hardy* in the night of 10th ult., off Crooked Island. The former had her trysailboom and stern davits carried away, quarter railing stove, and quarter planking started. —*April* 30*th.*

120. The ship *St. Louis*, Davis, at this port from Manila, in lat. 9°, long. 50°, 1 A.M. 23rd ult., fine weather and moonlight, was in contact with the barque *Jessie*, of Bristol, for Demerara. The master of the *Jessie* stated that his men were all below, excepting the man at the wheel, and all asleep, the crew refusing to stand night watch, because they were running down the trades. The *St. Louis* received very little damage, but the *Jessie* was much injured in the hull, spars, &c,, and sprung a bad leak. Mr. Davis sent men on board, who trimmed her out forward, and partially stopped her leaks, one pump keeping her free.—*April* 30*th.*

121. *Plymouth, May* 6*th.*—The *Rose*, (s), from Waterford for London, put in to-day with considerable damage, having been in contact off the Ram Head, on the night of the 5th of May, with a large American ship, name unknown.—*May* 7*th.*

122. *Dartmouth, May* 10*th.*—The *Magdelen*, Fraser, from Newcastle for Quebec, having been in contact with the schooner *Peri*, Harris, of Salcombe, on the 6th inst., as was reported on the 8th inst., with loss of jibboom and leaky.—*May* 11*th.*

123. *Sunderland, May* 10*th.*—The schooner *Jessie*, Stobbie, of Aberdeen, sailed out of this harbour to day for Honfleur, and returned, having lost her bowsprit by being in contact with another vessel, name not ascertained. —*May* 11*th.*

124. *Calais, May 11th.*—Arrived at 1 P.M., the *Criterion*, schooner, Mortley of Padstow, from Glasgow, with loss of jibboom, having been in contact on the 3rd, at night, with a large ship, Bardsey Island bearing S.E.b.S. The master of the unknown ship came on deck, and exerted himself to the utmost to extricate the schooner, otherwise the collision might have proved fatal for her.—*May 13th*

125. *Scarborough, May 13th.*—Put in, 12.—The *Humility*, Turton, from Hartlepool, towed in here by a smack, with loss of bowsprit, bulwarks, stanchions, &c., having been in collision with the *Richard Watson*, of Sunderland.—*May 14th.*

126. *Cardiff, May 13th.*—Mr. T. Murray, master of the brig *Disraeli*, of Milford, arrived this morning at this port, reports as follows, viz :—

That about a quarter past 9 o'clock on Saturday evening last, the 11th inst, when off the Nash Point, steering E.S.E.—wind being W.b.N., a fresh breeze—observed a steamer ahead, and immediately placed a light on the larboard bow, and put the helm a port, to endeavour to clear her, hailing the steamer at same time, when some one replied "put your helm a-starboard," they at the same moment putting their helm a-starboard, which caused the steamer's larboard quarter to come in contact with the *Disraeli's* larboard bow, and carried away jibboom and spritsail yard, and twisted the shank of the larboard anchor. The steamer proceeded down channel without paying any attention. We asked her name, but had no reply, and, being night time, was soon out of sight, therefore cannot say what damage she may have sustained.—*May 14th.*

127. *Deal, May 24th.*—The *Lady of the Lake*, Smith, from London for St. Andrew's (N.B.), came in contact with the Russian barque *Franciska*, off the North Foreland, last evening, in a thick fog, had the bow stove in, jibboom carried away, and sustained other material damage,—*May 24th.*

128. *Helsingfors, May 16th.*—The *Helsingfors*, Sundman, from Rio de Janeiro, has arrived here, with loss of bowsprit and damage to Hull, rigging, sails, &c, having been in contact with a vessel in the North Sea during a thick fog. She has discharged part of her cargo, a portion of which is damaged.—*May 27th.*

129. *Queenstown, May 27th.*—Arrived, the *Emelyn*, of Exeter, from Alexandria, for orders. When off Cape de Gat, was run into by the Norwegian barque *Peder Cappelen*, of Dram, and carried away the *Emelyn's* foremast and everything belonging to it, sprung mainmast head, lost maintopgallant and royal masts, with jibboom, and everything thereunto belonging; also stove the ship's side abaft the fore chains, with sundry other damage.—*May 29th.*

130. *Antwerp, May 28th.*—The *Lucon*, Allies, which arrived at St, Thomas, on the 8th ult., from Marseilles, was under repairs at that port, having been in contact with an English vessel.—*May 29th.*

---

The foregoing treats of Collisions that have occurred on the high seas; the following narrative of a fearful one which took place recently on Lake Erie, shows that *want of Look-out* extends to fresh as well as salt water.

*Canada West, Tuesday, May 7th.*

Most heartily do I thank the Almighty that I am here alive and in good health to relate to you the terrible events of last night, and when you hear how wonderfully we have been rescued from a death which seemed inevitible,

I am sure that you and my mother will also thank God for his great mercy towards me. I had written in my journal a full account of our voyage, and was hoping to write by this mail telling you of our safe arrival and fortunate voyage. However all our less important adventures will have but little interest for you, and I have not the spirits to write them even if they had. We had a most enjoyable voyage up the St. Lawrence and Lake Ontario, and arrived at Port Maitland on the shores of Lake Erie, and only 100 miles from the end of our journey; at 5 o'clock yesterday morning our consort the *Earl Cathcart* arrived soon after, (I have not told you that Captain Phillott, Chamberlain, Grantham, and myself were embarked with 118 men in the *Commerce*,) and we lay up here for the day, amusing ourselves picking up the fossils of Lake Erie, &c. The *Cathcart* got under way about 8 P.M., and she being the slowest boat, it was arranged that we should give her three hours start so as to be at Port Stanley as near as possible together. We turned in at 10, and shortly after the *Commerce* stood out to sea, but had not got out more than two miles, when we were awoke by a terrible crash and shouting. We all immediately turned out, hurried on a coat, and went on deck. Never shall I forget the scene, and it will be some time before my nerves recover it, or I can entirely persuade myself of the terrible truth. The deck was crowded with soldiers and their wives, the latter shrieking fearfully, and the men groaning and praying. The only intelligible sound was the fearful words "We are full of water, we are sinking fast," which were passed rapidly round, and which was indeed the case. About fifty yards on the starboard bow, was another steamer, who it appears by some inexcusable neglect had run us down, and cut us right in two. The water made terrible progress, and in five minutes had reached so high as to extinguish all the fires of the engines. I went about in company with Phillott, entreating the men to be steady and cling to the wreck till the last, and I believe had they done so almost every man would have been saved. I must say the men behaved very well under the circumstances, and obeyed the orders given them as quietly as could be expected.

We now had to run over and over as the vessel heeled over, which kept her upright for some time, though she still was gradually sinking. After about twenty minutes however that was of no avail, she gave a lurch and went down on the starboard side. I with many others was amidships, and when they saw that she was down, I never heard any thing so horrible as the cries of the men and women. I slipped down with the others, but caught the mainmast and clung there for a short time. That resource did not last long. I clung fast but felt the water first at my feet, and afterwards so high as to wash me away from my hold. I was now struggling in the water and had given myself up for lost. I snatched at an oar but it gave way with me and I sunk. The water bore me up and I perceived a rope at a few feet distance, I made a kind of spring and to my great joy reached it. With another effort which at another time I should never have accomplished, I caught hold of the bulwarks of the larboard side, which were now nearly down to the water's edge, the vessel being completely on her side and the whole of the starboard under water. I clung on there a short time, dreading every moment to be pulled by the legs by some drowning man, and certainly could not have held much longer (being suspended by my hands) when I saw several soldiers passing, a great many who had been in the forecastle having got on the side as she settled without even a wetting, I shouted "Give a hand," and a young Irish soldier of my company named John Croney, immediately stooped down and catching me by both hands pulled me on to the wreck.

In the mean time the other steamer had come round on the starboard bow

and now approached cautiously, she herself being severely injured. At length she got alongside, and to my great joy I heard my name called by Capt. Phillott. I immediately answered, and he ordered the men to get quietly on board, saying that we would be the last to leave the vessel. The soldiers accordingly crowded up the sides, and we went with the last lot. I had not much strength to climb the sides, but was assisted by the Pilot of the *Commerce*, who pulled me on deck by main force, and I again found myself *safe*. The greatest exertions were made by the crew of the steamer, which we found was the *Dispatch*, bound from Port Stanley to Buffalo, to save the men, and after staying and picking up every body that could be found, we stood for Port Maitland. To my infinite joy I saw Chamberlain soon after brought on board, though in a state much worse than mine. A warm cabin was provided, and some of the men who had but little clothing turned in. I was very wet, but except that perfectly unhurt. The scene as you may imagine was almost as painful as the wreck, and every instant enquiries were heard. " Have you seen my Brother ?" and poor fellows exclaiming that they had lost wife, children, every thing. Sometimes an answer was heard when a name was called, and followed by a shout of satisfaction.

The most affecting part to us was the solicitude of the poor men for their officers, and almost every man pressed forward to shake hands with me when I appeared. But alas, there were many names which never were answered, and among them our poor Assistant Surgeon Grantham. He was seen to go up in the rigging when the ship was sinking, and consequently when she went over on her side must have fallen into the water far from the *Dispatch*, and as he could not swim never made the vessel. A poor little fellow who had come for a pleasure trip, the son of a Commissariat Officer, at Montreal, shared the same fate.

We arrived safe here, where fortunately lay the man-of-war steamer *Minos*, now laid up, and in charge of a gunner in the navy. Phillott arranged to have us all on board here, and we accordingly marched on board, a sorrowful march of about a quarter of a mile, some with bare feet, most with but few clothes, having thrown them off to swim for it. Nothing could possibly be kinder than our reception by Mr. Hatch, the gunner, in charge of the vessel. The men were immediately formed below, and a most dismal roll-call commenced. Our loss though great, was less than we could have imagined. It was found to consist of one assistant surgeon, three serjeants, two corporals, one drummer, and eighteen men, besides seven women, and four children. Besides these were lost the little boy I told you of and one of the engineers of the ship, amounting in all to thirty-seven lives.

The men by the great attention of Mr. Hatch, were most of them provided with dry linen, and the accommodation was altogether very good. It was indeed a most Providential thing that this steamer lay near, as going out wet and exhausted to find billets was out of the question, and the other alternative staying on board the *Dispatch* nearly as bad. I was immediately accommodated with a pair of dry blankets, and feel this morning, thank God, quite well, and with the exception of a slight bruise on the nail unhurt. Chamberlain took some time to come round, but is also pretty well to day. Poor Capt. Phillott still stayed up, sending off telegraphic dispatches to head quarters, and to Port Stanley, and arranging for the *Cathcart* to come back here after landing the other company, to fetch us. He did not get to bed till nine this morning, and then was quite exhausted and shivering; but he is now asleep and I hope will wake pretty well again.

The *Dispatch* sailed out this morning to reconnoitre and could not even

discover where the wr ck went down. A few hats and cloaks were found floating and nothing else. She is proceeding now along the coast to Buffalo, but I believe is much injured, and scarcely sea-worthy. It is needless to tell you I have lost every thing I possessed, and it seems without any hope of recovering any. However, I am too thankful to the Almighty for sparing my life to repine about that. Mr. Hatch, has kindly clothed us all for the present. We have had the main cabin here full of Magistrates all the morning, I do not think they have arrived at much, as the crews of both *Dispatch* and *Commerce* immediately cleared away to a man, and they therefore could not get sufficient evidence to attach blame to any one. Somebody no doubt must have been to blame; but the laws about signals, of lights, &c., by which vessels may know each other at night seem to be in a most neglectful state.

---

### Capt. Peacock's Anti-Sargassian Paint.

The Royal West India mail steamer "*Trent*," was docked a few days ago to examine her bottom, and the portion of it done with the composition in December last, has turned out *most satisfactory*, fully corroborating the extraordinary facts developed on the "*Avon*" and "*Teviot.*" On cutting out two pieces, six inches square, from the painted and unpainted portions, it was found by weight that the unpainted had lost fully eighteen ounces on each sheet in *six* months, or at the rate of 2¼ lbs. of copper on each sheet per annum: thus on a frigate requiring 2000 sheets of copper, the loss would be two tons! a year, whilst the painted copper remained of the original thickness and quite clean. Some specimens were sent to the Admiralty, and an order has been given to coat one side of H. M. steam ship "*Viper.*"

The paint can be applied to copper, one coat *including* the labour of laying it on, at less than one penny per sheet, and the saving on the year is 18*d.* per sheet!

---

The Late Capt. Stanley.—Letters from Sydney have informed us of the sudden and unexpected death of Capt. Stanley in a fit of epilepsy, on the morning of the 13th of March. A letter from an officer to whom he was well known, and of which the following is an extract pays a just tribute to his memory:—

"Your service will feel the loss of this most talented officer. How well I am able to testify to his unwearied zeal in many branches of science, beyond those immediately professional.

"In early days we were together under Sir John Franklin, and he was then one of the earliest contributors to your *Nautical Magazine.* Although belonging to the "*Alligator*," I may say we were entirely together in the "*Britomart.*" His anxious cruize amongst the Aroo and Ki Islands, and the north-west coast of New Guinea, his close attention to magnetic observations, and the many entire nights spent in his portable observatory were the means of bringing on a fever, that few thought he would survive, for he was prostrated for several months; and no doubt his transition from the Arctic Seas to that climate was a severe trial. However, I have had no complaints of any return of sickness in any of his letters, indeed they were all written in high spirits, and he seemed to be delighted with his ship, officers, and employment.

"It is a source of some gratification that his labours in that sphere were nearly completed, although it was denied to him "to return in safety to enjoy the blessings of his native land with the fruits of his labours.'

In another number we may return to this subject, in the mean time it is highly satisfactory to find that Capt. Kepple, the junior officer present has appointed that deserving officer Lieut. Yule, to command the *Rattlesnake*, and bring her home.

## Examination of Masters of Merchant Ships.

A List of the Masters and Mates in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 30th April.

Those marked thus *m* served last as mates.

| Names. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Guthrie, D. | 1st | 1808 | Chapman, 281 tons | ..... | Glasgow | April 1st |
| M'Leod, D. | 2nd | 1820 | Bengal, 583 tons | 178703 | —— | — — |
| Oates, T. | 2nd | 1825 | Henrietta, 560 tons | 275814 | Liverpool | — 2nd |
| Caird, D. | 1st | 1819 | Lady Lilford, 596 tons | ..... | Dundee | — 3rd |
| Clark, W. J. | 3rd | 1817 | James Gibb, 814 tons *m* | 486830 | Hull | — 4th |
| M'Farlane, J. | 2nd | 1818 | Medemblik, 59 tons | 176593 | London | — — |
| King, H. | 2nd | 1824 | Maria Somes, 785 tons *m* | 213428 | —— | — — |
| Muller, N. | 2nd | 1823 | Eliza Penelope, 125 tons | 18662 | —— | — — |
| Herbert, T. | 3rd | 1819 | Earl Durham, 453 tons | ..... | —— | — — |
| Stagg, G. H. | 3rd | 1810 | Fleur de Marie, 135 tons | ..... | —— | — — |
| Burton, J. | 2nd | 1819 | John, 261 tons | 108834 | Newcastle | — — |
| Hinds, C. | 2nd | 1812 | Meval, 284 tons *m* | 50825 | —— | — — |
| M'Donald, D | 2nd | 1815 | Glencairn, 320 tons *m* | 151169 | Dundee | — 5th |
| Moir, J. | 2nd | 1819 | Minerva, 1310 tons | 9503 | London | — 8th |
| Colls, R. | 2nd | 1804 | Jason, 132 tons | ..... | —— | — — |
| Goskett, Y. | 2nd | 1817 | Huntcliffe, 238 tons | 164471 | S. Shields | — — |
| Hamilton, J. T. | 3rd | 1826 | Sirius, 224 tons *m* | 505 | —— | — 9th |
| Potter, L. | 1st | 1817 | Quintin, Leith, 643 tons | ..... | Glasgow | — 10th |
| Suter, J. H. | 1st | 1819 | James Scott, 340 tons | ..... | —— | — — |
| Cleland, W. H. | 1st | 1821 | William Shand, 501 tons | ..... | —— | — — |
| Browne, R. | 2nd | 1825 | Breadalbane, 521 tons *m* | 122578 | —— | — — |
| Low, G. | 2nd | 1821 | Lady Lilford, 596 tons *m* | 189302 | Dundee | — — |
| Lee, W. | 2nd | 1821 | Anne, 179 tons | 97140 | London | — 11th |
| Bartlett, W. | 2nd | 1824 | Britomart, as Mast. Asst | 121949 | Plymouth | — 12th |
| Feran, T. | 1st | 1805 | Sir Edmund Head, 624 tons | ..... | Liverpool | — 13th |
| Montgomery, E. | 2nd | 1817 | Sir G. Seymour, 850 tons *m* | 33930 | London | — 15th |
| Murray, R. | 2nd | 1822 | Dowson, 227 tons *m* | 19512 | —— | — — |
| Yeo, J. | 2nd | 1824 | Eleanor, 413 tons *m* | 400668 | Liverpool | — 17th |
| M'Neale, H. | 2nd | 1822 | Mary Muir, 357 tons *m* | 94652 | —— | — — |
| Spottiswoode, A. | 2nd | 1812 | David, 148 tons | 132674 | Dundee | — — |
| Kersey, E. R. | 2nd | 1825 | Earl Stradbroke, 116 tons *m* | 47162 | London | — 18th |
| Neatby, E. S. | 2nd | 1810 | Princess Helena, 450 tons *m* | 25781 | —— | — — |
| Cloete, S. V. | 2nd | 1825 | Minden, 917 tons *m* | 457169 | —— | — — |
| Croal, A. | 2nd | 1802 | Palmyra, 414 tons | ..... | —— | — — |
| Burn, R. S. | 2nd | 1822 | Pacha, 609 tons | 402180 | —— | — — |
| Killin, D. | 3rd | 1816 | William Inglis, 180 tons *m* | 158076 | —— | — — |
| Murphy, W. J. | 2nd | 1823 | Annsbro', 80 tons | 384066 | Plymouth | — 19th |
| Cameron, W. | 1st | 1822 | Uva, 150 tons | 39594 | Dundee | — — |
| Bell, A. | 1st | 1813 | Juliana, 246 tons | ..... | —— | — 20th |
| Farquhar, A. B. | 2nd | 1824 | Charlotte, 850 tons *m* | ..... | London | — 22nd |
| Lloyd, J. | 2nd | 1823 | Hudson, 511 tons *m* | 273342 | —— | — — |
| Jobson, D. | 2nd | 1826 | Indus, 377 tons *m* | 174873 | Dundee | — — |
| Moore, J. | 2nd | 1820 | Rienzi, 763 tons *m* | 281329 | Liverpool | — 23rd |
| Corney, R. | 2nd | 1825 | Hudson, 512 tons | 273616 | —— | — — |
| Foreman, D. | 1st | 1816 | Orestes, 680 tons | ..... | Dundee | — — |
| Gate, D. | 2nd | 1824 | Queen, 899 tons | 33996 | London | — 25th |
| Screech, J. | 2nd | 1806 | Forget Me Not, 116 tons | ..... | —— | — — |
| Short, C. | 2nd | 1828 | Maid of Erin, 183 tons *m* | 141389 | Plymouth | — 26th |
| Richmond, W. | 2nd | 1828 | Royal Alice, 534 tons *m* | 86257 | London | — 29th |
| Burry, E. J. | 2nd | 1818 | Recovery 284 tons | 13915 | —— | — — |
| Young, J. | 2nd | 1821 | Triumph, 130 tons | ..... | —— | — — |
| Hopkinson, J. | 2nd | 1810 | Haidee, 744 tons | ..... | Hull | — — |
| Brock, W. | 2nd | 1818 | Sceptre, | 104899 | S. Shields | — 30th |
| Johnson, J. | 2nd | 1818 | Athens, 252 tons | 183621 | —— | — — |
| Emery, W. M. | 3rd | 1816 | Coquet, 425 tons | 758 | —— | — — |

## MATES.

| Name. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Duncan, A. S. .. | 2nd | 1827 | Hindostan, 2017 tons† .... | 460012 | London | Mar. 7th |
| * Treweeke, C H | 2nd | 1823 | Tay, 1141 tons..... ..... | 383237 | —— | — — |
| Cortis, J. S. .... | 2nd | 1828 | Emperor, 914 tons ..... | 400309 | Hull | — — |
| Lawson, J. W .. | 2nd | 1828 | James, 110 tons†..... | 91972 | Dundee | — 8th |
| Cunningham, J. | 1st | 1828 | Lancaster, 350 tons..... | 158471 | Liverpool | — 14th |
| Small, J. ..... | 2nd | 1830 | Belize, 233 tons ..... | 132670 | Leith | — 15th |
| Mc Rae, H. V... | 3rd | 1823 | Euxine, 1000 tons ..... | 325142 | London | — 18th |
| Baylis, G. ..... | 2nd | 1831 | Mary Elizabeth, 31 tons†.. | 406068 | Gloster | — 19th |
| Anderson, D. ... | 2nd | 1828 | Courier, 389 tons..... | 90076 | Liverpool | — 20th |
| Freer, J..... | 2nd | 1828 | Trent, 1800 tons ..... | 32653 | London | — 21st |
| Longman, W. H. | 2nd | 1826 | Sir G. Seymour, 850 tons.. | 324192 | —— | — — |
| Warr, G. L..... | 2nd | 1822 | Fear Not, 97 tons ..... | 46220 | —— | — — |
| Shears, R..... | 2nd | 1826 | Severn, 1083 tons ..... | 265118 | —— | — — |
| Nyren, E. G .... | 2nd | 1825 | Argo, 1163 tons .... ..... | 413095 | Liverpool | — 22nd |
| * Ellis, J. ..... | 3rd | 1828 | Rhine, 330 tons ..... | 4809 | London | — 25th |
| O'Reilly, H ..ex | 1st | 1824 | Ocean, 300 tons ..... | 274439 | Glasgow | — — |
| Souter, W..... | 2nd | 1827 | Glencairn, 330 tons ..... | 175089 | Dundee | — 27th |
| Sherlock, J. B... | 2nd | 1827 | Prince Regent, 394 tons .. | 95693 | London | — 28th |
| Llewellyn, J.... | 2nd | 1827 | Harmony, 47 tons .. ..... | 461346 | Milford | — 26th |
| Kennedy J. .... | 1st | 1824 | Beulah, 578 tons ..... | 79666 | Glasgow | April 1st |
| Guthrie, G. .... | 2nd | 1818 | Bengal, 583 tons ..... | 421627 | —— | — 5th |
| Dudley, C ..... | 3rd | 1823 | Lord Aukland, 515 tons .. | 34162 | London | — 8th |
| Davidson, R..... | 2nd | 1829 | Fortitude, 251 tons..... | 192198 | Liverpool | — 9th |
| Plant, S..... | 2nd | 1829 | Edmundsbury, 523 tons.... | 9248 | London | — 11th |
| Thomas, T. H.. | 2nd | 1819 | Pestonjee Bomanjee 595 ts. | 328894 | Plymouth | — 12th |
| Graham, F. .... | 2nd | 1826 | Ivanhoe, 371 tons ..... | 31977 | Leith | — — |
| Phipps, C. W. T. | 2nd | 1827 | Viscount Sandon, 540 tons | 256627 | London | — 15th |
| Pfort, C..... | 2nd | 1828 | Tanjore, 422 tons ..... | 9271 | —— | — — |
| * Butcher, T. .. | 3rd | 1828 | Trident, 968 tons† ..... | 4678 | —— | — 18th |
| Crickmay, E. S. | 2nd | 1829 | Heroine, 307 tons ..... | 15292 | —— | — 22nd |
| Davies J. ..... | 2nd | 1824 | Lotus, 281 tons ..... | 483292 | —— | — 25th |
| Pope, A ..... | 2nd | 1830 | Diana, 574 tons..... .... | 435733 | Plymouth | — 26th |
| Alexander, F.M. | 2nd | 1830 | Candahar, 642 tons .. .. .. | 328906 | London | — 29th |
| Allport, J. P.... | 3rd | 1828 | Larpent, 614 tons ..... | 32610 | —— | — — |
| * Drynan, W. .. | 3rd | 1828 | John Bull, 345 tons† ..... | 7888 | —— | — — |

* Qualified for Steam Vessels only. † As Seaman.

## NAUTICAL NOTICES.

FALSE LIGHTS ON THE BAHAMAS.—Navigators passing through the Gulf Stream, on their passage to ports in Cuba or the Gulf of Mexico, should be on their guard, as false lights have recently been exhibited on the Bemini Islands, by some atrocious scoundrels, for the purpose of misleading navigators, and running ships ashore. The following certificate has been handed to us for publication:—

*New Orleans, June* 1, 1850.

We, the undersigned, do hereby certify and make known to whomsoever it may concern, that on the 8th ult., at 7 P.M., the North Bemini Island, bearing S.E., by compass, distant nine miles, that we—our four ships being in company—made a revolving light on the above island. Being well aware of our position we continued on a S.S.W. course, when at 9 P.M., we made the regular revolving light on Gun Key. Had we mistaken the first light for Gun Key Light we should have steered a course that would have brought us directly upon the Moselle Shoal. For the benefit of navigaton, we think it necessary that the practice of showing false lights should be made known.

D. T. Ryan, ship *Rio Grande.*
Lawson, L. Watts, ship *Emma Watts*, of Hallowell.
James S. Sears, ship *Faneuil Hall*, of Boston.
William Cushing, ship *Hindostan*, of Salem.

Mr. Ryan also states that he saw a revolving light on the Bemini Islands on the night of the 19th April last.

---

The Columbia: South Passage.—The *Oregon Spectator*, of March 7, says:—"Capt. White has recently sounded the south passage through, and found four fathoms of water at half tide, at the shoalest part, which is only about two ships' lengths. Through the rest the water is very deep. The certainty of this passage into the Columbia is of very great consequence, as it is much shorter than the channel by Cape Disappointment, is nearly straight, and avoids all the delays incident to getting into Baker's Bay. Vessels can moreover enter with winds which do not permit them to come in by the old channel. It is Capt. White's intention, as soon as a buoy can be put down, to bring vessels in by this route."

---

Natal.—Capt. Anderson, of the barque *Aliwal* has discovered a large and dangerous rock or shoal, with heavy breakers, about thirty miles S.W. from Natal, and distant from the land about two miles, which was not laid down in any chart. Captains of coasting vessels were therefore warned to be on their guard.

---

### Buoys of the Shambles.

Mr. Editor,—As the buoys of the Shambles appear by report to have been washed away and never replaced, will you be so good as to give me the date of the usual printed notice of the Trinity House announcing those facts; as the circumstance was entirely new to me, and I wish to correct my chart and directions accordingly. Such an annual as is published by the board of Northern Lights, would indeed be a desirable thing for immitation by the Trinity House of London, as noticed in page 127 of your February number, and would have saved my troubling you with this from,

Your obedient servant,

Mercator.

*To the Editor N.M.*

[We would gladly furnish our correspondent with the information he asks for, but we do not remember at present to have seen any notice of the kind.]

---

Fixed Light on Kyholm Island, (Great Belt.)—The Danish Government has given notice that the *Intermitting* Light on the Island of Kyholm, in the entrance of the Great Belt, was susperseded on the 17th instant, by a new *Fixed* Light, which stands close to the northward of the former light; and which being of the same height, fifty-seven feet above the level of the sea, is visible in all directions at the distance of eight or nine miles.

---

*Barque "Prince of Wales," of London, July 18th, 1849.*

Sir.—I beg to inform you that a very dangerous sunken rock lies in a fair way in the channel, between Entrance and Little Woody Islands, leading from Cape York towards Endeavour Straits. A vessel in company with me passing close to the tide ripplings on it struck, but came off again. It may be seen by a look out from aloft by the ripple. I passed about half a cable's length inside and shoaled from 9 fathoms to 5½, and deepened immediately to 8 and 9 fathoms, not knowing my companion had struck, took no notice of the bearings to depend on, and they were in such confusion on board the other vessel as not to notice them. I shall feel obliged by your making this known as many masters prefer that passage, it being laid down clear in Capt. Blackwood's chart.

I am &c.,

Joseph Wilson, *Commander.*

Spurn Lights.—It is right seamen should be informed that these important lights are in some danger from the encroachments of the sea. It appears that in February last, the spring ebb assisted by a strong N.W. wind found its way over the ridge of the Spurn Point to the northward of the lighthouses, by which a channel has been gradually worn away about half a mile wide, with twelve feet in it, leaving the Spurn lights isolated. We perceive by the elaborate survey of the entrance of the Humber, by the late Capt. Hewitt, that this ridge is marked as being occasionally overflowed, so that the breach now effected might have been expected.

The lighthouses thus stand at present on an island, vessels passing into or out of the river, on either side of them. But how long the sea will allow them to remain, is a question which remains to be answered. We presume, however, that something will shortly either be done for their preservation, or to meet the consequences of their being undermined of which timely notice will be given.

---

## Captain Forsyth's Arctic Branch Expedition.

The *Prince Albert* sailed out into the bay on Wednesday evening, and in a few hours would be out of sight of Aberdeen. She has a fine crew of young men; they were all sober, and passed muster well and in high spirits.

This gallant little band of adventurous seamen, who have nobly gone in search of her Majesty's ships *Erebus* and *Terror*, and their ice-imprisoned crews, one and all solicited Captain Forsyth to attend the clergyman the evening before sailing, to offer up prayers for a successful voyage, a request which, of course, was cheerfully complied with.

This little expedition is an honour to the country, and does infinite credit to the noble-minded lady who has fitted it out, aided by a few friends and generous sympathisers in the cause.

There is now no part of the Arctic seas, where Franklin is likely to be found, left unprovided for in the search, the only gap—and a most important one—having been filled up by the untiring energies of Lady Franklin.

It will not be through want of advocating her cause, if she is left to bear the greater part of the expenses, to which we have already called attention, and we hope with some effect.

Captain Forsyth is an officer of experience in the surveying service. We glean from Mr. O'Byrne's invaluable "Naval Biography," that he served in the *Beagle*, under Captains Wickham and Stokes, and has therefore been brought up in a good school, and will, no doubt, prove himself worthy the command of this important branch of the expedition. His services are, we believe, gratuitous, looking forward to the honours and rewards he hopes to earn.

Embarked in the expedition is a young man of great abilities, Mr. Snow, who came over from America to volunteer accompanying the expedition. He will probably have charge of one of the boat parties. He is the son of an old officer in the service, Lieut. Snow, who died some years back, and who saw much hard service during the war. With varied talents, Mr. Snow will be a great acquisition during the dreary months of winter, and will take charge of the school; in fact he will be a sort of "seamen's schoolmaster." So what with him, as a constant companion, and a most excellent "seamen's library," with which the crew have been presented, we have no fear time will hang heavy on their hands. We heartily wish them the success they *deserve*, but must bear in mind that "it is not in mortals to *command* success," and especially on such a service.

"Out of sight out of mind," is not our motto. This gallant little expedition, consisting of but one small vessel, is now stemming the waves of the broad Atlantic, and boldly pursuing her course to the frozen regions of the North, there to encounter all the dangers and all the privations which unrelentingly pursue the hardy navigators of those ice-bound seas.

We have now passed our longest day, and are already approaching winter. Short as *our* summer is, shorter still is that in the Arctic region; and soon will that gallant little vessel, the *Prince Albert,* and her gallant crew, be frozen up on the inhospitable shores of Prince Regent's Inlet, to pass a long and dreary winter, without a consort, and with only their own noble spirits to cheer one another. Yet will they be joyous enough amidst all the surrounding desolation. They have embarked on a sacred cause, and have gone forth trusting in the protection of the Almighty, and resting their hopes on His saving power.

It will probably be towards the close of the summer before dispatches are received from Capt. Forsyth, and we shall then probably only know of his having touched at Disco. But we may reasonably hope he will have safely run the gauntlet of the ice in Baffin's Bay, and entered the open waters of Barrow Straits, pursuing his voyage down Prince Regent's Inlet so far as he may deem it prudent. Once safe in winter quarters he will be busily employed in preparing for an early start in the spring, with his boats and sledges, and to pass the time usefully schools for the men will be opened under that intelligent young man Mr. Snow, who has embarked with him. The seamen's library, given by a friend who well knew how much they would stand in need of one, will help to wile away many a dreary hour, and at the same time tend to instruct as well as to amuse the men; and though last not least, the bagpipes, fiddle, and accordion will supply the place of better music; which was intended for them, his Royal Highness Prince Albert having, we have heard, ordered an organ to be presented to the crew of the ship bearing his name "in the hope that he might contribute to cheer and lighten the labours of those gallant men in their laudable and hazardous enterprise."

Unfortunately, the expedition, hurried beyond measure, sailed without it, but it was a kindly-intended act, and worthy of our noble Prince.

In three short weeks was this expedition equipped. One thousand pounds were at once advanced by Lady Franklin, and about £1,200 more since have been subscribed in a short time by her friends, and the friends of humanity; but this is a long way short of £5,000, which is about the total sum required, and we earnestly hope that the generosity and chivalry of the people of England will not allow that this noble-minded lady should be called upon to exhaust her private resources in the equipment of an expedition, allowed by all who have gone into this subject, to be most important and most necessary, but that they will come forward and relieve her, recollecting that the expedition has gone away in search of two of her Majesty's ships, sent out by her Majesty's government, and under command of her most honoured, most amiable, and most distinguished husband, the good and brave Sir John Franklin.

---

### Search for Sir John Franklin.

A copy of the following letter was forwarded to Lloyd's yesterday from the Lords Commissioners of the Admiralty:—

"*Her Majesty's Ship Enterprize, Fortescue Bay,*
"*Straits of Magellan, April 18th,* 1850.

"Sir.—I had the honour to report to you, by the *Nancy Dawson,* that her

Majesty's ships under my command reached Possession Bay, in the Straits of Magellan, on the 10th April, where I found the *Gorgon*. The *Investigator* not having arrived I deemed it advisable to push on by myself, leaving orders with Capt. Paynter, to join me in the Straits on the 17th, should the *Investigator* not appear. We reached this place, being favoured with fine weather; and having stayed a day at Sandy Point, for the purpose of procuring fresh beef. On the morning of the 16th I had the happiness of being joined by the *Gorgon*, and the *Investigator* yesterday afternoon; so that we are now in a condition to face the most difficult portion of the navigation, with ten days' fuel, independent of what can be spared from the discovery ships in case of need, which I have little doubt, by choosing our time, will be sufficient to take us fairly into the Pacific. Yet as the period of our arrival in Bhering's Straits is drawing on so fast, I feel myself under the necessity of proceeding from here straight to the Sandwich Islands, lest by calling at Valparaiso would lessen the probability of my reaching the ice by the 1st of August. Under this conviction our provisions have been completed from the *Gorgon*, and with the ten days' fresh beef we have obtained here, together with the stores their lordships have provided for the health of the crews, I have little doubt but that the object they had in view by ordering me to repair to that port will be attained, and that the health of the ships' companies will not be impaired by foregoing a relaxation, while the main object of their lordships' instructions would be lost.

I have, &c.,

RICHARD COLLINSON, *Captain.*

*To the Secretary of the Admiralty.*

---

### LOSS OF THE "ORION" STEAMER.

The *Orion*, a regular packet, running between Glasgow and Liverpool, sailed from the latter port on Monday afternoon, and was wrecked on the rocks of Portpatrick.

The subjoined letter, and list of passengers booked at Liverpool, appeared in the *Shipping* and *Mercantile Gazette*. It is dated Portpatrick, June 18:—

"At one o'clock this morning the *Orion* (s), 460 horse-power, Henderson, master, on passage from Liverpool for Glasgow, ran on the rocks about a quarter of a mile from this harbour, and backing off with the flood tide, immediately sank in 7 fathoms water. The *Orion* left Liverpool at 4 P.M., on Monday, with a light breeze at N.W.; at midnight she passed the Mull of Galloway Light, when Mr. Henderson was on deck. He remained on deck until the vessel had passed the Dunsman's Head, about four miles from the Mull, and six from Portpatrick. He then went below and fell asleep on the sofa, directing the officer in charge of the watch, the course to be steered. At the hour stated he was aroused by the vessel running on the rocks; the engines were attempted to be set to work, but the rush of water into the vessel had extinguished the fires, and the engines were useless. Orders were then given to get the boats afloat, of which the vessel had four, but the rush of passengers on deck seriously impeded this operation. The two first boats that were got afloat, were swamped alongside by the rush of passengers into them; the other two boats were despatched with passengers, and landing safely, returned to the vessel. In the mean time the vessel settled down forward as she filled, and after a long time, she sunk aft, the crew and what remained of the passengers taking to the rigging, or clinging to the wreck and whatever was afloat. By this time the people of Portpatrick were aroused, and boats

from the shore went off to the rescue of the unfortunate people on board. At present it is impossible to estimate the numbers lost or saved, as the numbers of those on board cannot be accurately ascertained. According to Mr. Henderson, there were on board, cabin passengers, 117; steerage passengers, 42; crew, 38; total, 197. But several of the cabin passengers state, that their number was not less than from 140 to 145; and some estimate the steerage passengers at 70. This would make the total number on board about 250; and the opinion is, that 150 have been seen alive since the wreck, including 35 of the crew."

[We transcribe the foregoing narrative of the loss of the *Orion*, on her passage from Liverpool to Greenock as an interesting record of the event. Of the conduct which led to it, by which so many lives were sacrificed we say nothing, as it is under judicial investigation; but we may observe with reference to it, that the master is reported to be of opinion, that the tide is not less felt in shore, than it is mid channel, while the mate who had charge of the deck was of a different opinion, and as soon as the master left him in charge, the mate accordingly hugged the shore. It is scarcely to be believed that the rock on which the *Orion* struck, was actually three feet above water at the time she struck, or that this same rock is not more than 5 or 6 fathoms from high water mark, being entirely dry at low water!

Yet so it is, and the first exclamation is against the charts! The *Orion* had seen the Inner Light of Portpatrick, having passed close to that pier, and had altered her course half a point further off shore before she struck! But did the master leave orders how she was to be steered, or was the *Orion* kept in shore in defiance of those orders, or to satisfy the mate's opinion of that being the proper course. In either case this was wrong; the master was responsible, and no one should be permitted to break his orders.]

Captain Denham, R.N., has been sent to Portpatrick by government to investigate the whole circumstances connected with the loss of the *Orion*. He was not long in obtaining such evidence as tended greatly to abridge his labours. It was proved to him, we understand, that the man at the helm and others of the crew remonstrated with the second mate for keeping so near the shore, but he refused to alter his course. The catastrophe was the consequence. This is almost unaccountable, for the second mate knew the channel better than any man in England; he had sailed through it during twenty years, and was selected for his especial knowledge. There is, however, in certain state of the tides, a strong current, and all vessels going to Glasgow keep as close as possible to the shore. The second mate unfortunately went too close. He is now in custody. It is generally understood that the second mate's watch is also the master's watch, but Captain Denham has decided that it is not.—*Gore's Liverpool Advertizer.*

---

### Settling a Kingdom Man-of-War Fashion.

One of Her Majesty's ships, while cruising on the African Station, was ordered to proceed to the Camaroon River, and deliver the presents to kings Bell and Aqua, in fulfilment of a treaty entered into with these sovereigns by the British Government for the suppression of the slave trade; and, on the morning after her arrival, at daylight, was surrounded by a number of war canoes, with fifty men in each, one division having king Bell and his chiefs on board, another division the eldest son of the late king Aqua, (who died since the delivery of the former presents,) and the other division the youugest son of the late king, who had deposed his elder brother and assumed the sovereignty. The captain declined receiving them on board till eight o'clock, when the colours were hoisted,

and a guard of marines ready to receive them, the officers wearing their swords and cocked hats. King Bell was the first to come on board, accompanied by his favourite wife and twelve of his chiefs; he was dressed in the full dress of a mail coach guard, with a petticoat instead of trousers; next was the eldest son of old Aqua, wearing an English General's full dress coat and epaulettes, no breeches, nor any substitute for them; last came Tim Aqua, the younger brother; he wore the full dress of a General Officer, and was decently clad in a pair of white duck trousers; and ankle boots, also a white beaver hat, with a blue silk band, and on it in letters of gold "King Aqua." The English resident at Bell Town also came on board and represented to the captain, that, in consequence of Tim having assumed the sovereighty, the trade of Aqua was stopped, much to the injury of the Liverpool merchants, whose agent he was, and requested the captain would use what authority he possessed to place the rightful heir in his proper position, and prevent Tim Aqua from taking upon himself the rank of his late father.

A palaver was immediately held on the quarter-deck, King Bell and the Aqua chiefs examined, when it was proved to the satisfaction of the captain, that the prince without the breeches was the eldest son of the late king, and consequently the rightful heir to the throne. The master-at-arms was ordered to disposses Tim of his emblem of sovereignty, by removing the blue band from his white hat; this ceremony appeared excessively disgusting to Tim Aqua, but having no power to resist, he quietly acquiesced and became a subject. The elder brother was then required to enter into the same treaty as his father had done, and sign the same in the presence of several witnesses, which having done, he was desired to go on his knees, and the captain drawing his sword, gave him the flat side between his shoulders, saying, "In the name of Victoria Queen of England, I acknowledge you King of the Aqua country." At the conclusion of the ceremony the marines presented arms, the chiefs cheered, and King Aqua was congratulated on being established on the throne of his forefathers. The younger brother, Tim, much hurt and excited at being deposed, asked the captain what he intended doing with him; he was told, "If he would take the oath of allegiance to the king his brother, and swear to serve him truly and honestly as his lawful Sovereign, and render all and every assistance in his power to British subjects trading to the Aqua country, he would be created Prince Royal." This Tim Aqua rather reluctantly agreed to, and having signed the necessary document in the presence of the former witnesses, he was desired to kneel, when the same ceremony was gone through as with the king, excepting the captain saying, "In the name of Victoria Queen of England, I create you Prince Royal of the Aqua country."

The presents were then delivered to Kings Bell and Aqua, consisting of, to each sovereign, 1 puncheon of rum, 20 barrels of gunpowder, 60 muskets, 20 bales of blue cotton cloth, and a general's uniform, coat and epaulettes, with a handsome sabre in a gold mounted velvet scabbard. King Aqua generously offered one-half of the presents he received to his brother Tim, now Prince Royal, no doubt fearing that if he had not done so, that when they reached the shore Tim might dispossess him of the whole. This division, except the rum and gunpowder, took place on the quarter-deck; and when the tin case, containing the general's coat and epaulettes was opened, the Prince Royal proposed to divide the coat by cutting it down the centre of the back, and the king to have one epaulette and himself the other. The king without the breeches appealed to the captain to prevent such an outrage. He decided that the coat and epaulettes was the insignia of sovereignty, appointed by the British Government to decorate the body of the lawful king, at the same time strongly impressing on the mind of His Majesty, that when he wore the coat and epaulettes, he ought, out of respect to Her Majesty and the British Government, always to put on a pair of breeches.

Thus in an hour, was one king deposed, another established, and the dynasty of an empire settled without bloodshed, by the captain of a British man-of-war. *United Service Gazette.*

## New Books.

Narrative of an Expedition *to the Shores of the Arctic Seas in* 1846 *and* 1847. *By John Rae, Hudson Bay Company's Service.—Boone, London,* 1850.

For an Arctic Voyager, no one was better qualified than Dr. Rae; and therefore no one could have better performed the arduous task assigned to him than he did, either in overcoming all the difficulties and exposure to which he would be liable; or in the midst of them all, to obtain and preserve in his journal, those important but delicate observations with which exposure to the elements so little accords. Indeed, we hardly know which to admire most, the determined manner in which he and his party met every privation, or the deliberate careful attention he paid to the scientific duties required of him. For instance he says "as we were sleeping on shore we never thought of putting up any sort of shelter; the consequence was in the morning we were covered with snow to the depth of a foot." We read in one place of the night being mild (6° below freezing,) at another in a snow house, a luxury not often *enjoyed* that, "there was no fuel to be found, so we followed our old plan, and took a kettle or two of snow to bed with us," a mode of thawing it for the purpose of obtaining fresh water, which we presume, may be classed as an *aerating* process; but notwithstanding these cold hearted bedfellows, Dr. Rae says "Fortunately we all enjoyed excellent health, and our *few* discomforts instead of causing discontent furnished us with subjects of merriment. For instance, Hutchinson, about this time (February, 1847,) had his knee frozen in bed, and I believe the poor fellow (who by-the-bye was the softest of the party) was afterwards very sorry for letting it be known, as he got so heartily laughed at for his effeminacy." Someting like sea sickness in which (no one is pitied by his companions,) are these and similar adventures of the *voyageurs* of the Hudson's Bay Company. Every one knows the object of this expedition was to determine the Southern boundary of the Gulf of Boothia and well Dr. Rae has executed his task.

The book forms an important link in the chain of narrative of Arctic Discovery, for no collection of such works could have been complete without it, and is as full of interest as Arctic voyaging can hardly fail to render it. Here is a little bit of Esquimaux gossip in it.

"I had a good deal of conversation, through the interpreters, with Arksheek whom I found rather intelligent and communicative. It appears that the favorite food of these Esquimaux is musk ox flesh; venison ranks next, and bear and walrus was preferred to seal and fish. Their theory with regard to sun and moon is rather peculiar. It is said that many years ago, not long after the creation of the world, there was a mighty conjurer (Esquimaux of course) who gained so much power, that at last he raised himself up into the heavens, taking with him his sister (a beautiful girl) and a fire. To the latter he added great quantities of fuel which thus formed the sun. For some time he and his sister lived in great harmony, but at last they disagreed, and he in addition to maltreating the lady in many ways, at last scorched one side of her face. She had suffered all sorts of indignities, but the spoiling of her beauty was not to be borne; she therefore ran away from him and formed the moon, and continues so until this day. Her brother is still in chase of her, but although he sometimes gets near, he will never overtake her. When it is new moon, the burnt side of the face is towards us; when full moon, the reverse is the case.

"The stars are supposed to be the spirits of the dead Esquimaux that have fixed themselves in the heavens; and falling stars, or meteors, and the aurora borealis, are those spirits moving from one place to another while visiting their friends."

---

A Rudimentary Treatise *on the History, Construction, and Illumination of Light-houses, by Alan Stevenson, L.S.B., &c.*—Weale, London.

Of that valuable collection of Rudimentary Treatise in the course of publication by Mr. Weale, the above named little volume is specially interesting to

seamen, as it places before them at a trifling cost, the information which has hitherto appeared only in large and expensive works. The particulars mentioned in the title are well carried out, and with the illustrations of the illuminating powers of lenses, their mode of application, and arrangement for the service of lighthouses form one of the most interesting little volumes that can be placed in the hands of the young seaman.

---

The Life of Columbus.—Parker, London.

A useful little abridgement of Washington Irving's well known book, but containing nothing new, and pretending to give representations of Columbus's vessels, which do not agree with the description given either by Jal in his valuable work, or Columbus himself. The compiler seems quite innocent of the first landing place of Columbus as might be expected from the above pictures and maintains Washington Irving's "Ancient Landmarks."

---

Hunt's Universal Yacht List.

A rough and ready yacht companion of yachts and yacht signals, with rules and regulations of yachts and yacht clubs, has been published by Hunt and Co. of Church Street, Edgeware Road. It will be found a very portable and useful little book for our yacht squadron, and an indispensable companion for the commanders.

---

We perceive that Mr. Piddington has published an eighteenth memoir on the Law of Storms containing additional important information on this subject, with directions for ships overtaken by them, between the Sandheads in the Bay of Bengal. While on this subject so much has been done by Mr. Piddington, and we may also add by ourselves sufficient to tire our own readers, that it is curious we should meet the following remarks of Mr. Redfield in an American paper! yet so it is.

The London *Shipping and Mercantile Gazette* of May 30th, contains a copious extract from the log of the *Moultan*, Indiaman, which vessel encountered on the 24th of February, in the Indian Ocean, a terrific hurricane from E.S.E., lat. 18° S., long. 89° E., in which the ship continued for several days, and in the opinion of her officers nothing but her extreme goodness and the strength of the fastenings saved her from inevitable destruction. The master had needlessly exposed his ship to the fury of this hurricane, and being sorely pressed by it, makes this sage remark :—

"Theorists may, after a hurricane is over, by comparing the logs of different vessels, point out what each should have done to avoid the greatest strength of the storm, but I question much the possibility of doing so on this present occasion." So, the good master, despairing of remedy, gravely determined on that management which, unfortunately, afforded him the least possible chance of escape from this furious tempest. By, "theorists" the master undoubtedly means those whose persevering inquiries have developed the actual experience of navigators who have fallen under different portions of these violent tempests, and have thus ascertained that they are in subjection to a uniform law, which, on due inquiry, can be easily understood, but which he had failed to comprehend.

A knowledge of this law, on his part might have saved all the injuries and hazards which were incurred by his ship and her crew on this occasion. His latitude, and the direction of the wind at the ship, in the commencement of the gale, indicated the course he could have steered to avoid the strength of this tempest; or, at the outset, he could have brought his ship to the wind, on the port tack, to allow the vortex to pass him, and then resume his course, preserving a safe distance from the storm. For so slow is the progress of the hurricane in that portion of the Indian Ocean, as appears

from his own log, that the degree of exposure in any case is actually made subject to the discretion of the intelligent commander. Yet the master of the *Moultan*, who has rendered the public good service in this publication, is far from being alone in failing to understand a natural law, which ought now to be universally familiar to navigators. It is almost twenty years since the chief outlines of this physical law was first laid open to navigators, and the specific application to the southern hemisphere suggested. Since that period, there have been published the important inquiries and elucidations of Col. Reid, found in his successive works On the Development of the Law of Storms: the work of Mr. Thom, On the Nature and Course of Storms in the Indian Ocean; and numerous memoirs and works of Mr. Piddington, including his "Sailor's Horn Book for the Law of Storms." Other elucidations are found in "Silliman's Journal," the "American Coast Pilot," and other American publications.

Facilities for acquiring a knowledge of this great subject have thus been placed within reach of all inquiries, and with highly beneficial results. Much however, remains to be done, in diffusing this knowledge among seamen, and in making it plain and familiar to their understandings. Both in the navy and the merchant service of the fatherland much attention is awakened to this branch of knowledge, while the practical benefits derived from it are too plain to be disregarded. Nor is this knowledge of less importance in the American seas, or to American commerce. Hence our merchants and navigators will not be found insensible to its obvious utility and advantage—W. C. Redfield.—*New York Journal of Commerce, June 19th.*

[We have even shewn a ship playing with a hurricane, like a large fly buzzing on the limits of a vortex, but with more wisdom; standing into its limits and out of them again at pleasure, which a correct knowledge of the laws of these storms enabled her excellent commander to do.—Ed. *N. M.*]

---

The New West India Steam Fleet.—The directors of the Royal Mail Steam Packet Company have accepted tenders for the immediate construction of five magnificent Atlantic steam ships for performing the through voyages from Southampton to the Isthmus of Panama. One of these vessels is to be built in Southampton by Mr. Wigram, of London, but her machinery is to be put on board in the Clyde. The following is a list of the ships, their names, tonnage, and power, with the names of the builders, viz.:— The *Oronoco*, 2,250 tons, 750 horse-power, to be built by Pitcher, at Northfleet, the engines by Maudsley, Sons, and Field of London. The *Magdalena* 2,250 tons, 750 horse-power, to be built by Pitcher, of Northfleet, the engines by Messrs. Napier, of Glasgow. The *Demerara*, 2,250 tons, 750 horse-power, to be built by Messrs. Patterson, of Bristol, the engines by Caird and Co., of Greenock. The *Amazon* 2,250 tons, 750 horse-power, to be built by Messrs. Green, of Blackwall, the engines by Seaward and Co., of London. The *Parana*, 2,250 tons, 750 horse-power, to be built at Southampton by Messrs. Wigram, the engines by Caird and Co., Greenock. The whole of the vessels are to be built of wood, and will be ready for sea in a year, or perhaps less. They will be propelled on the paddle wheel principle, and are to be pressed forward with the greatest possible dispatch. The number of miles to be steamed in order to perform the combined service of the West Indies and Brazils is 547,296, while 20,640 will have to be traversed by sailing vessels, the total mileage being 567,936 miles. The number of ships employed in performing the West India and Brazil services, including a proper provision for reserve, will be 20, including the five new ships above named and the following, namely:—Steamers, *Avon, Clyde, Conway, Dee, Derwent, Eagle, Great Western, Medway, Severn, Tay, Teviot, Thames, Trent, Esk*, (screw), and *Larne*, (sailing vessel).

## New Charts.

*Published in July* 1850, *and Sold by J. D. Potter*, 31, *Poultry.*

Crapuad Road, *Prince Edward's Island, Capt. H. W. Bayfield, R.N.*, 1842. - - - - - - - - - - - - s. 0 d. 6

Tewhaka, Koko-Rarata, and Wakaroa Bays, *New Zealand, Capt. J. L. Stokes, R.N.*, 1849. - - - - - - - - 1 0

Edward Dunsterville, *Master.*

*Hydrographic Office, Admiralty, July 20th*, 1850.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory
From the 21st of June, to the 20th of July, 1850.

| Month Day. | Week Day. | Barometer. In Inches and Decimals | | Thermometer In the shade. | | | | Wind. Quarter. | | Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | F. | 30·21 | 30·17 | 67 | 77 | 55 | 78 | SW | SW | 1 | 2 | bcm | bcm |
| 22 | S. | 30·20 | 30·24 | 65 | 78 | 55 | 79 | W | W | 2 | 2 | bcm | bm |
| 23 | Su. | 30·31 | 30·29 | 65 | 78 | 54 | 80 | SW | NE | 1 | 1 | b | bm |
| 24 | M. | 30·31 | 30·27 | 74 | 77 | 58 | 78 | E | E | 2 | 2 | b | b |
| 25 | Tu. | 30·20 | 30·17 | 68 | 77 | 56 | 78 | NE | NE | 2 | 3 | b | b |
| 26 | W. | 30·01 | 29 91 | 68 | 77 | 54 | 78 | E | E | 3 | 1 | bc | bc |
| 27 | Th. | 30·06 | 30·08 | 58 | 65 | 53 | 67 | NE | NE | 4 | 3 | or (1 | bc |
| 28 | F. | 29·86 | 29·74 | 60 | 64 | 52 | 66 | E | NE | 2 | 1 | bcp 1) | op (3) |
| 29 | S. | 29 76 | 29·83 | 58 | 64 | 54 | 66 | NW | NW | 4 | 4 | bcp (1 | bc |
| 30 | Su. | 30·00 | 30·02 | 63 | 69 | 48 | 70 | W | SW | 4 | 5 | bc | qbc |
| 1 | M. | 29·92 | 29.85 | 64 | 65 | 52 | 66 | SW | SW | 5 | 5 | qo | qo |
| 2 | Tu. | 29·79 | 29 94 | 61 | 67 | 49 | 69 | W | W | 5 | 4 | qbc | bc |
| 3 | W. | 29·81 | 29·83 | 61 | 71 | 54 | 72 | SW | SW | 8 | 8 | qod (2) | qbc |
| 4 | Th. | 29·81 | 29·81 | 57 | 61 | 54 | 64 | SW | SW | 6 | 5 | qop 1) (2) | qbcp (3) |
| 5 | F. | 30·12 | 30 14 | 60 | 65 | 48 | 66 | W | W | 4 | 4 | bc | bc |
| 6 | S. | 30·17 | 30·07 | 62 | 66 | 48 | 68 | S | SW | 2 | 4 | bc | o |
| 7 | Su. | 29 70 | 29 82 | 59 | 57 | 53 | 61 | E | N | 1 | 5 | bc (2 | qor (3 |
| 8 | M. | 30·02 | 30·04 | 55 | 63 | 48 | 64 | NW | NW | 2 | 4 | bc | bc |
| 9 | Tu. | 30·04 | 30·02 | 57 | 64 | 47 | 67 | NW | NW | 5 | 4 | qbc | bcp 3) |
| 10 | W. | 30·10 | 30·08 | 54 | 65 | 45 | 67 | NW | NW | 4 | 3 | bc | bc |
| 11 | Th. | 30·08 | 30·12 | 63 | 67 | 50 | 68 | NW | NW | 1 | 1 | b | o |
| 12 | F. | 30 13 | 30·10 | 64 | 72 | 53 | 73 | E | E | 1 | 1 | bcm | bcm |
| 13 | S. | 30·10 | 30·04 | 60 | 72 | 52 | 74 | NE | NE | 2 | 2 | b | bc |
| 14 | Su. | 30·10 | 30·10 | 62 | 72 | 56 | 74 | NE | NE | 2 | 3 | o | bc |
| 15 | M. | 30 07 | 30·00 | 70 | 78 | 58 | 79 | NE | E | 3 | 3 | bc | bc |
| 16 | Tu. | 30·04 | 30·02 | 71 | 81 | 63 | 83 | E | S | 2 | 1 | bclp (1 | bclt |
| 17 | W | 29·96 | 29·94 | 68 | 77 | 62 | 78 | NE | NW | 3 | 1 | bc | belt |
| 18 | Th. | 30·02 | 30 02 | 60 | 69 | 59 | 71 | W | N | 1 | 1 | oc (2) | oltp 3) (4 |
| 19 | F. | 30·00 | 29·96 | 62 | 62 | 58 | 68 | W | N | 1 | 1 | od (2) | op [3 |
| 20 | S. | 30 00 | 30·02 | 59 | 61 | 56 | 62 | N | N | 2 | 2 | od (2) | or [3] |

June, 1850.—Mean height of the barometer = 30·055 inches; mean temperature = 60·6 degrees; depth of rain fallen = 0·98 inch.

Explanation.—b. blue sky—c. cloudy, broken clouds—d. drizzle, small rain—l. lightning—t. thunder—m. hazy—o. overcast, sky covered with one unbroken cloud—f. passing showers—q. squalls—r. rain—1. morning—2. forenoon—3. afternoon—4. night; intervals 6 hours each, semi-circle, half; whole circle, whole interval of rain.

## To Correspondents.

Will "A subscriber of Twelve Years standing" repeat his question on the Channel Tides? We have mislaid his letter.

Hunt, Printer, Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

# Naval Chronicle.

SEPTEMBER, 1850.

## Remarks on the Winds which prevail in some parts of the Pacific, and on the North-Western Coast of America.—*By Lieut. James Wood, late commanding H.M S. Pandora.*

The prevailing winds of the Pacific, with the exception of those on the coasts of Chili and Peru, are little known. A few remarks, therefore, on those that obtain along the western coast of America from the river Guayaquil to Vancouver Island, as well as on the more regular and extended ærial currents which traverse the vast expanse of the open ocean, condensed from observations and information collected during a four years' cruize over the greater part of it, may not be destitute of interest and utility, especially as the northern portion is but little known, and promises 'ere long to become the theatre of an important trade between the coasts of China and the new and rich countries which American enterprise and energy are now so rapidly peopling, and raising from obscurity on the coast of California.

The whole of this extensive line may be divided into three portions or zones:—

*First.*—The *intertropical*, which is all more or less affected by the fine and rainy seasons.

*Secondly.*—The dry and arid portion which extends from 23° to 32° north, where the winds blow with almost the regularity of a trade wind.

*Thirdly.*—The more variable northern coast which is subject to greater vicissitudes of climate.

### *Guayaquil River to Guascames Point.*

*The Intertropical.*—Along the whole of the coast from the river

Guayaquil, in lat. 3° south, to Guascames Point in 2° north, the wind is mostly from south to west all the year round; the exceptions are few, and generally occur in the fine season. Both in beating up this coast to the southward, and in running down it, the former in the months of May and June, the latter in those of October, November, and January, we had the wind from S.S.E. to W. (by the south,) with a constant current to the north-eastward, the only difference being that the winds were lighter, and the weather finer in May and June as we got to the southward; whilst the contrary took place in October and November; and in January the weather was generally fine with moderate breezes.

*Choco Bay.*

After entering the Bay of Choco, of which Point Guascames forms the southern horn, the winds become more variable; but during the time we were in the bay (from the end of January to the middle of March) it never blew very fresh, though the weather was often unsettled and heavy rains frequent. The prevailing wind was from south-west but north-westerly winds were not uncommon.

*Chirambira Point to the Gulf of San Miguel.*

When past Chirambira Point (the northern horn of Choco Bay) we had the wind more from the northward, and in the latter end of March had to beat up to Panama Bay against north-westerly and north-easterly breezes, blowing a fresh breeze at times, especially as we approached the Bay.

In surveying this last named part in January 1848, we found the winds more variable, heavy rains almost always accompanying a change to south-west, from which quarter we once or twice had a stiff breeze.

*Gulf of San Miguel to the Gulf of Dulce, including the Bay of Panama.*

1*st, or Intertropical Winds.*—Between the southern point of the Gulf of San Miguel and the Gulf of Dulce, including Panama Bay and the coast of Veragua, the winds are regulated by the seasons. Towards the end of December the northers begin to blow. These are fine, dry breezes which generally come on in the afternoon, and blow very fresh from N.N.E. to N.N.W. till near midnight, with a perfectly clear and cloudless sky, and the air, so dry and rarefied that objects on a level with the horizon are distorted and flattened, and the same effects are caused as are seen during an easterly breeze off our own coast. Though generally a double-reefed topsail breeze, they occasionally blow much harder, especially off the coast of Veragua, where in the months of January and February, even a close-reefed topsail breeze is not uncommon. During even the strongest of these, a dead calm often prevails ten or fifteen miles off the land, the only evidence of the gale that is blowing within a few hundred yards of you being the agitation of the water, which is raised into short hollow waves, which break on board of and tumble you about awfully.

Towards the end of March up to the middle of April, the northers

begin to cease, and are succeeded by calms and light sea and land breezes, with occasional squalls from the south-westward. As April advances the squalls get stronger and more frequent, and by the early part of May the rainy season generally sets in; during the greater part of which south and south-westerly winds prevail: these are not very violent within the Bay of Panama; but from Punta Mala westward, gales from the above quarters are frequent, and sometimes severe, bringing a very heavy sea with them.

*Gulf of Dulce to the Gulf of Fonseca.*

From the Gulf of Dulce, proceeding westward along the shores of Costa Rica, Guatemala, and Mexico, we find the winds still follow the changes of the seasons, modified however by locality. For instance, whenever the northers prevail, we find them blowing off the shore at nearly right angles to the run of the coast;—thus, as soon as the coast of Nicaragua is approached (which takes a more northerly direction than that before mentioned) we find during the fine season the northers exchanged for breezes called "Papagayos." These blow from N.N.E. to E.N.E. or E., and are accompanied by the same clear fine weather as the northers; the prevailing wind, however, during this season (from January to April) is from south-east to north-east. From May to November which is the rainy season, the weather is mostly bad, gales from the west and south-west with thunder, lightning, &c., being frequent and at times violent.

*Gulf of Fonseca to the Gulf of Tehuantepec.*

After passing the Gulf of Fonseca, where the land again trends nearly due west, the northerly winds are lost, 'till on reaching the Gulf of Tehuantepec we meet them once more, but under a different name, and assuming a more violent character. Along this portion where the mountains approach, and even in some places form the coast line, the winds during the fine season are the usual tropical land and sea breezes; the former from N.W., the latter from S. to W.S.W. and W. The remaining months are marked by even worse weather from the same quarters as is found on the Nicaragua coast.

*From the Gulf of Tehuantepec to Texupan Point.*

*1st. or Intertropical Winds.*—The heavy blasts which blow over the isthmus of Tehuantepec, derive their source from the country they cross. They seem to be caused by the northers in the Gulf of Mexico, which here find a vent through the opening formed between the Mexican and Guatemalian mountains. They blow with great force from north to N.N.E., and raise a very high short sea; their force is felt several hundred miles off the coast. During the season when they prevail (December to April) every preparation should be made to meet and carry sail through them: if this can be done they are soon crossed, and 200 to 250 miles of westing (or easting) made; otherwise, if you are obliged to heave to, 36 to 118 hours of heavy weather may be expected, exposed all the while to a very high and short sea. In the rainy season these

cease; but the weather here, as along the whole coast of Mexico, is then very bad, gales and strong breezes from S.E. to S.W. constantly occur, whilst squalls accompanied by thunder and lightning, with heavy and almost incessant rain characterise the season throughout. These gales are at times very severe, rendering the navigation of such a coast very unpleasant, as with one exception, there is scarcely any shelter from them to be found. During the fine season, however, nothing can be more regular or quiet than the weather on the Mexican coast;—a regular sea-breeze sets in about noon, beginning from S.S.W. to W.S.W., and getting more westerly as the sun goes down, decreasing with it, and gradually sinking into a calm as the night closes in. This is succeeded by the land wind off the shore, which is more irregular in its direction and force, but these winds, and the method of making a passage to the westward along the coast have been so well, and so truly described by Dampier and Basil Hall, that nothing remains but to add my testimony to the correctness of the accounts they give as far as their phenomena fell under my own observation.

As soon as the coast begins to trend northerly again, which it does about Texupan Point, we meet the northerly winds which blow down the Gulf of California, and which are found pretty steady during the fine season a few miles off the coast: by taking advantage of these, and the daily variations caused by the land and sea breezes, the passage is made from this point to San Blas and Mazatlan; but it is always a tedious beat owing to a contrary current and frequent calms.

*From Cape St. Lucas to San Diego.*

*2nd Portion or Division.*—From Cape St. Lucas to San Diego, or from 23° to 32° north, the general direction of the wind is from west to north, but during the winter months, or from November to April, this coast is subject to violent gales from the S.E., which as most of the bays and anchorages are open towards that quarter, are much dreaded. This is especially the case along the northern portion of this division, as towards Cape St. Lucas they are less frequent: however, they always give ample warning of their approach. The only way therefore of making a passage up this coast is by standing off upon the starboard tack: as you get out the wind draws to the eastward, till either the variables are reached, or you can fetch your port on the other tack. In the summer season the only alteration is that the wind is more westerly in the mornings, and draws round with the sun as the day advances.

*From San Diego to San Francisco.*

*3rd Division.*—From San Diego to San Francisco the wind prevails from the north-westward nearly all the year round. This coast is subject to the same south-easterly gales as the coast of Lower California, but they are more frequent here, and blow with greater force. All its bays and roadsteads are similarly exposed with the exception of the above named ports, which are perfectly secure and defended from all winds. During the winter, therefore, vessels always anchor in a conve-

nient berth for slipping, with springs and buoys on their cables, so that on the first appearance of heavy clouds approaching from the south-east, with a swell rolling up from the same quarter (the invariable signs of the coming gale), they may be able to slip and go to sea without loss of time. These gales last from twelve hours to two days, and are accompanied by heavy rain which lasts till the wind changes, which it often does very suddenly, and blows as hard for a few hours from the north-west, when the clouds clear off and fine weather again succeeds. Off Conception Point gales and strong breezes are so frequent as to obtain for it the appellation of the Cape Horn of California. They are mostly from north to west, and frequently blow with great force, especially in the winter, when they sometimes last for three days together, without a cloud to be seen, till they begin to moderate. But here one of the most remarkable features of this coast first shows itself, viz. the frequent and dense fogs, which during more than half the year render the navigation from San Diego northward most unpleasant. In making the land the only way to deal with them, is to feel your way into the coast with the lead during the day time, as it frequently happens that a thick fog prevails at sea, while at the same time within a mile or two of the land a beautiful clear bright sky, and open horizon are to be found: if disappointed in this you have but to wear, haul off again and heave to till the desired change does take place.

*From San Francisco to Vancouver Island.*

From San Francisco northward to the Juan de Fuca Straits, the north-westerly are still the prevailing winds; in the months of June, September, and October, we found them almost constantly so: hard gales from all points of the compass, however, may be looked for here at all seasons; especially during the winter, and the equinoxial months. These begin generally from south-east to south-west, bringing thick rainy weather with them. After blowing from these quarters for some hours, they fly round to the northward, (by the west,) with little, if any warning, except the increased heaviness of the rain, and blow even harder than before. During the spring, easterly and north-westerly breezes are more prevalent than at other seasons. In the summer months, westerly winds and fine weather prevail, but from the end of July to the end of August the fogs are so frequent that many weeks will sometimes pass without a clear day.

*From the Southward to Panama Bay.*

*Method of Making Passage within the 1st. Division.*—From what has been said respecting the winds which prevail within the first division, it will be seen that the passage from the southward to Panama Bay is easily made during the greater part of the year; but in the fine season, when within the influence of the northers, the following plan should be adopted. Make short tacks in shore, as there is generally a set to the northward found within a few miles of the land, and where that is interrupted, a regular tide is exchanged for a constantly contrary current farther off. Between Chirambira Point and Cape Corrientes the

land is low and faced with shoals, caused by the mouths of the numerous rivers which have their outlets on this part of the coast, but after passing Cape Corrientes, it may be approached pretty closely, except off Francisco Solano Point, where some shoal rocky patches extend to seaward, as the coast is in general bold to. Care however, should be taken not to run into the calms caused by the high lands, as it is difficult to get off into the breeze again, and the swell sets in shore where it frequently happens that no anchorage is to be found till close to the rocks.

In beating up the Bay of Panama in the fine season, the eastern passage, or that between the Islas del Rey and the main is to be preferred, as with one exception, it is free from dangers. The water is smooth and a regular tide enables you to make more northing than it would be possible to do in nine cases out of ten, against the strong current and short high sea, which at this season prevail in the centre or on the western side. During the rainy season a strait course up the bay is preferable to entangling yourself with the islands, the current generally following the direction of the wind.

*From Panama Bay to the Southward.*

But the great difficulty at all times, consists in getting either to the southward or westward of Panama. The passage to the southward is made in two ways,—either by beating up the coast against a constantly foul wind and contrary current, or by standing off to sea, till sufficient southing is made to allow you to fetch your port on the starboard tack. Both plans are very tedious, as it frequently takes twenty days to beat up to Guayaquil, whilst six or seven days are an average passage down.

*From Panama Bay to the Westward.*

If bound to the westward during the northers, a great deal of time may be saved by keeping close in shore, and thus taking advantage of them; they will carry you as far as the Gulf of Nicoya. When past the Morro Hermoso, "Papagayos" may be looked for, and with them a course should be steered for the Gulf of Tehuantepec, when it will depend on the port you are bound to, whether after crossing the gulf by the aid of one of its gales, you should keep in or off shore. If bound for Acapulco, keep in, and beat up; but if bound to the westward you cannot do better than make a west course, as nearly as the winds will allow you: but as the inshore winds are now under discussion, we will leave the consideration of the best means of reaching the trade-winds for a future occasion.

The passage to the westward from Panama during the rainy season, is a most tedious affair, calms, squalls, contrary winds, and currents, accompanied by a heavy swell, and extreme heat, as well as an atmosphere loaded with moisture and rain, are the daily accompaniments. It often occurs that twenty miles of westing is not made in a week, and it is only by the industrious use of every squall and slant of wind, that the passage can be made at all. Opinions are divided amongst the coasters as to the propriety of working to the southward and trying to get rid

of the bad weather, or beating up within a moderate distance of the land. My experience would lead me to prefer the latter, as the strong winds and frequent squalls which so often occur near the land, sometimes allow a good long leg to be made to the north-westward, while farther off this advantage is sacrificed for only a shade finer weather.

*General observations respecting the off Shore Winds.*

With respect to the winds which prevail in the open ocean, the same general rules obtain in the Pacific, as are recognised throughout the rest of the globe, *i.e.*, a north-eastern trade within the limits of the northern tropic, and a south-eastern within the southern; also as to the prevalence of westerly winds when either to the northward or southward of these boundaries. There are, however, exceptions to these rules. Within the tropics wherever large groups of islands are found, the trades are subject to great variations both in direction and force. Also to the northward of the tropic of Cancer, when bound from the Sandwich Islands for the American coast, there are many instances during the spring and summer, of 45°, or even 50° of north latitude, being reached before a westerly wind could be obtained.

*From the Galapagos Islands to Cape St. Lucas.*

I have already alluded to the difficulty of getting to the westward from the Bay of Panama. The trade wind seems to possess no steady influence to the eastward of a line drawn from Cape St. Lucas, in 22° north, to the Galapagos Islands on the equator. Amongst these islands the south-eastern trade wind is steady during nine or ten months of the year, and it is only in January and February, and sometimes March, that they are interrupted by long calms, and occasional breezes north and north-west, but these are never of any great strength. To the northward of them, the eastern limit of the trade seems to depend upon the time of year. In the early part of April, I have found it between the parallels of 8° and 13° north, 900 to 1,000 miles farther to the eastward, than at the end of June; and in the intermediate months, either more or less to the eastward as it was earlier or later in the season, but in no case that I have met with, has a steady or regular trade been experienced till the above line has been reached. It is this circumstance, and the prevalence in the intermediate space of westerly winds, calms, and contrary currents, that makes the passage from Panama to the westward, as far as this line, so tedious. I have been forty days beating from the entrance of the bay in 80° west, to the eastern edge of the trade in 111° west, a distance of less than 2,000 miles, or on an average about forty miles per day.

*From the Meridian of Cape St. Lucas westward.*

When once within the influence of the trade, a passage is easily made either to the southward, westward, or northward; but it must be borne in mind that the eastern verge of this trade, seems, in these parts, to be influenced by the seasons. Thus, in June and July, I found it fresh from N.N.W. and even at times N.W. as far out as the meridian of

125° W., whereas in March and April it was light from N.N.E. to E. and E.S.E. from our first meeting it in 98° W. till passed the meridian of Cape St. Lucas in 110° W., where I picked up a good steady breeze from N.N.E.

As a general rule the wind is found to haul more to the eastward as you get farther off the land, and I did not find this rule affected by the latitude, as, although as I have stated, the wind hangs to the northward, and even at times to the westward of north near the eastern limit of the trade, from the tropic of Cancer to the variables near the equator, I found it about the meridian of the Sandwich Islands, as far to the eastward on and near the line as it was in 35° north, in which latitude the westerly winds are in general met with.

*From the Sandwich Islands to the northward and eastward.*

The passages, therefore, from the Sandwich Islands to any part of the north-west coast of America are made by standing to the northward till the westerly winds are reached, when the run into the coast is easily made, taking care however if bound to a port to the southward of you, not to bear up till well in with the land, when as I have said north-westerly winds will be found to carry you down to the southward.

On this coast as a general rule, the land should always be made to the northward of the port you are bound to, as in almost all cases the wind and current both prevail from the northward from Vancouver Island to Cape Corrientes of Mexico.

Though lying between the parallels of 19° and 23° north, the Sandwich Islands are often visited during the winter months, with strong breezes and gales from south and south-west, but for the rest of the year the trade-wind blows pretty steadily. In making a passage from thence to the coast of Chili or Peru, the best way is to stand across the trade as near the wind as the top-mast-studding-sail will stand. This, as the direction of the wind is in general from E.N.E., to E., will enable you to make Tahiti, and pass the Society Islands by one of the clear channels to the westward of it. It is of little use trying to fetch to the eastward of these, as not only do you lose much time by hugging the wind too close, but also the strong current, which sets to the westward from twenty to forty miles a day, is pretty sure to drift you that much to leeward; and even were this not the case, so difficult, tedious, and dangerous, is the navigation amongst the Archipelago of Low Coral Islands, which lie to the eastward, that unless you can weather the Marquesas altogether, it is better even to bear up, than to entangle yourself in such a labyrinth. After passing the Society Islands, stand on to the southward, till in or about the 30th parallel the westerly winds will be found. These will carry you into the coast; care being taken as on the northern coast, not to bear up when within the influence of the southerly winds, till near enough to the land to ensure keeping them down to your port.

*Trade winds affected by Groups of Islands.*

I have before stated that when once within the influence of these island groups, the trade winds are found to be subject to great alterations

and deflections, or lost altogether. This is especially the case during the time the sun is to the southward of the equator amongst those in the southern hemisphere. West and south-west, as well as north-west winds are then often experienced, and amongst the far western groups, heavy gales almost amounting to hurricanes are experienced, when from their latitude they should be in the very centre of the trade winds. As a proof of this deviation from the usual course of the trades, when near large groups of islands, I may mention that when making the passage from the Sandwich to the Society Islands in June 1849, I had the wind nearly east all the way to the parallel of the Marquesas (10° south), when it came from the south-eastward; but I left Tahiti at the end of the same month for Valparaiso with a north-westerly wind, though this island is situated in 17° south. This carried me five hundred miles to the westward, nor did I again meet the trade, though the usual boundary, (the parallel of 30° south,) was not passed till I had sailed with (for the most part) a fair wind, upwards of 2,000 miles to the eastward.

From the time I left Pitcairns Island (13th July,) to within 100 miles of the American coast, a distance of more than 3,000 miles, I experienced strong winds, and sometimes gales from south round by west to north-west, only one day's interval; this being from all accounts the general character of winds in these latitudes.

The winds on the coasts of Chili and Peru, have been ably described by Capt. Fitzroy and other navigators.

---

EXCURSION TO THE LAKE OF NICARAGUA* UP THE RIVER SAN JUAN.—*By Mr. George Lawrence, Assistant-Surveyor of H.M.S. Thunder, Com. E. Barnett, in March*, 1840.

ON the 8th of March, at 4 P.M., we left H.M.S. *Thunder*, at St. John's, in a canoe, manned with five stout Indians of the Rama tribe, who are considered the best boatmen on this coast, and an intelligent Columbian padrone, or pilot.

After touching at the town we proceeded on our voyage up the river San Juan, having been supplied with provision for seven days.

For the first few miles up the river we found the stream apparently flowing at the rate of one knot per hour: the banks low, swampy, and

* Mr. Bailey having ascertained the possibility of constructing a railroad from the head of the Lake of Nicaragua, across the isthmus to the Pacific, the Government voted him 2,000 dollars, to undertake the examination of the river St. John, with a view to ascertain the practicability of constructing a canal, which would avoid the rapids, to obtain the difference of level between the Lake and the Atlantic, and how far the river could be made available to steam navigation. To assist him, were appointed his son, a Captain of Engineers, and from twenty to thirty native pioneers; however, so arduous was the undertaking, that it appears the only thing done was, the survey of the river, on an extensive scale; at the conclusion of which, the party was nearly all disabled by sickness, their funds expended, and consequently their expedition at an end, and from the

difficult of access, thickly clad with a high coarse grass, called by the natives Gamalooti,* and lined with trees. At sunset we were about a mile above the lower mouth of the Juanillo, where the width varies from a half to three-fourths of a cable. At 7h. 30m. P.M. we landed on a dry sand-spit to give the Indians their supper, and then resumed our paddles, keeping up a rate of two miles and a half per hour through the water, but probably not more than one and a half over the ground.

---

wretched state of affairs, there is no prospect of Mr. Bailey receiving any further encouragement from his Government.

With respect to the mode of navigating this river, Mr. Higgins, the American traveller, and several others, who have frequently made the voyage of it and the Lake, say, that nothing can be more correct than the description given by Roberts, in "Constable's Miscellany." As to the possibility of cutting a canal, although several report favorably, it is merely because they are interested in the success of such an undertaking, their opinions being given from what they have seen in passing to and fro, as fast as the rapids would permit, and the impenetrable woods which line the banks would allow them to see.

As to navigating it by steam-vessels at the present moment, it is out of the question.

From some cause or other, the force of the stream appears to have taken the direction of the Colorados branch, where it sweeps every thing before it. The consequence is that the shallows are growing in the other, and so rapidly that the bongos, (trading canoes,) are now frequently left aground for several days; and it was with some difficulty that we could find a passage over the bar for our yawl to water.

There is a rapid deposit taking place at the entrance point of the harbour, which clealy shews that if the whole force of the stream is not soon turned in this direction, not only will the river become unnavigable, but the harbour filled in.

The damming up of the Colorados could no doubt be effected, although at a considerable cost and immense labour; yet it should be borne in mind the country is subject to severe earthquakes. On the 22nd of May, two shocks were felt at the village, the last of which so alarmed the inhabitants, that they were on the point of quitting their huts; we were at sea, about thirty miles north of the harbour, and felt one of them distinctly.

From Mr. Higgins's account Mr. Bailey has also examined a part of the southern shore of the lake between Grenada and Nicaragua; and if he could be furnished with a small decked boat of light draught, he would still carry on the work, the rude bongo and canoe employed by the natives being perfectly unadapted for such a service. This could be easily sent to him in frame, or indeed already constructed, either by the river, or across the narrow isthmus which separates the port of St. John in the Gulf of Papagayo from the Nicaragua, only a distance of fifteen miles on a cart road; so that it would appear access to the Lake is more easily attainable from the Pacific than the Atlantic.

Mr. Bailey is said to have been employed by a company of American speculators; this, however, is not the fact; although the merchants concerned in the South Sea fishery are extremely anxious to effect a communication, but nothing will be undertaken by them unless they are convinced it can be accomplished by the way pointed out in Mr. Bailey's mission, which by affording the means of rapid transport of the cargoes and supplies, would enable the whalers to remain entirely in the Pacific. Of course the spur which would be also given to the commerce of central America is not lost sight of, but the anarchy, confusion, and distrust which now so ruinously degrades this disruptured republic, throws the prospect of such desirable results to an immeasurable distance.—*Com. E. Barnett.*

* Spelt as pronounced.

The river was here exceedingly shallow, as our canoe, which only drew a foot and half, and steered by the padrone, who appeared to be well acquainted with the navigation, grounded several times on the soft muddy bottom.

Several small islands composed of alluvium were passed, overgrown with grass and trees, the former ten or twelve feet in height, the banks about eight feet, consisting of the same material.

The moon favouring us, we continued our course till 10h. 30m. P.M., when we hauled the canoe up for the night on a dry sand-spit, near the Island Canon, where the banks of the river, though densely clad with grass, afford an indifferent footing. The river appeared to have subsided recently, by the sand which was still wet at some distance from the margin, this, the padrone ascribed to the sudden fall of the Serapequi River, which had lately been swollen by the rains. The numerous low flat sand-banks of the different points and islands, on which landing at present can easily be effected, are said to be completely overflowed in the rainy season.

*Monday 9th.*—At 5h. A.M. we launched our canoe, and commenced paddling against a stream of two knots in the centre of the river, the shallows obliging us frequently to alter our course, the width varying from 100 to 200 yards. Off Vanilla Point, or (Juanillo,) I got the bearing of Juanillo Hill, which we subsequently ascertained by trigonometrical measurement to be 1,249 feet above the level of the sea. Here the grassy islets have a very imposing appearance. At 9h. 15m. we landed to breakfast on the island of Colorado, distant from Point Arenas at the mouth of the river, nineteen miles. Below the Colorado branch, the bed of the river most encumbered with islets and sand-banks, which in the rainy season are partially overflowed; but in dry weather are formidable obstacles to navigation, and would ultimately block up the river altogether, but for the occasional freshes which keep the channels clear.

The average height of the trees on the island of Colorado is about eighty feet; on which we saw a few monkeys and macaws. The banks of this part of the river are more defined, and apparently composed of rich alluvial matter.

The river Colorado at its junction with the San Juan, appeared wider, deeper, and freer from obstruction than the latter, the stream running at the same rate about two knots per hour.

Abreast of the Isla de Concepcion, the northern banks of the river are a little steeper than those of the south, being nearly fifteen feet in height, at the base of which, as well as in the centre of the river, we observed for the first time, in detached masses, boulders of trappean rock, shewing themselves above the surface of the water: they have evidently been washed down in the rainy season, when the stream is so violent that the native boats or bongos, manned by a dozen able hands, find it impossible to get up thus far, and are often obliged to return to Boca de San Juan, not being able to make headway. Above Concepcion the river attains a breadth of about a quarter of a mile or more, but in many places we found it still very shallow. About a mile above it, two or three rivu-

lets empty themselves into the northern side of the river. This morning we caught a glimpse of the Manati, and saw some alligators and guanas.

At noon we were midway between the Culebras and Gigante Islands, and soon afterwards passed the upper mouth of the Juanillo, which appeared to be small and nearly blocked up.

Since we passed the Colorado we have found the banks gradually more prominent, and still composed of the same material, in some places partially stratified, and more indurated; the trees had also attained a greater magnitude; those on the small Island of Gigante, being not less than 100 feet high. The only human habitations we had hitherto seen since entering the Boca, were two or three huts, the temporary residences of sarsaparilla gatherers, situated on banks between Isla Gigante, and the place from which we started this morning.

The sea breeze had been blowing fresh all day at north-east, and would have enabled us to carry sail, but to avoid the current which was now running rather strong, we were obliged to keep close under the banks, where the overhanging branches would not allow us to step our masts.

We here found the depth of the river to vary from eight to ten, and fifteen feet, the stream going at the rate of two knots, or a knot faster than below the Colorado branch.

At 5 P.M. we landed on a small dry sand bank about three-quarters of a mile below the mouth of the river Serapequi, which is twenty-nine miles distant from Point Arenas. The mean height of the banks between the Colorado and the Serapequi is about ten feet, and that of the trees including the bank between 100 and 150 feet, the largest of which was the eboo and cotton trees. Suspended from the branches of the latter we observed in great numbers the curiously constructed nest of a bird, which the natives call "yellow tail", a species of hangnest, or cassicus of Swainson.

The width of the Serapequi at its entrance is about 150 yards, at present very low, but not entirely dried up.

At 6 P.M. we started, and continued paddling against the stream of two knots, till 10 P.M., when we came to another dry sand shoal, and remained for the night, about one-quarter of a mile above the Isla de San Francisco, thirty-seven miles distant from Point Arenas. Our reason for always landing on such bare insulated spots in preference to the banks of the river was, that the latter are so completely overgrown with grass, and infected with noxious reptiles and insects; we, however, always slept in the canoe, while the Indians divested of any clothing they might have worn during the day, and collected in a heap, preferred a sandy couch in spite of sandflies, or any other anoyance: the jaguars howling dismally, and dew falling heavy.

*Tuesday 10th.*—At 5 A.M. the Indians rose without being called, and commenced their paddling labours with the greatest alacrity and good will: the morning exceedingly fine and tranquil, and the river looking beautiful.

About a quarter of a mile above the spot of last night's bivouac,

there are three remarkable cliffs on the south side of the river, composed of red ochreous earth, about fifty or sixty feet in height: the contiguous parts of the bank are about twenty feet high, prominent and well defined, lined with trees of large growth, and clothed with vegetation the most luxuriant.

About half a mile above the Isla de San Francisco, we passed a point round which the stream sometimes rushes with great violence, forming a kind of whirlpool; and hence called Ramillino, where there is a small island of the same name. This phenomenon when passed was scarcely preceptible. At 9 A.M. we arrived at the Island Careinja, where we hauled up the canoe, (alway taking the precaution to have the chronometers carefully deposited in some shady place.) After breakfast we proceeded, paddling along the banks, which now in many places rise to forty and fifty feet, consisting of the same material: the Gamalooti grass growing on the lower parts of the bank contrasted beautifully with the darker tints of the forest—sky overcast—weather sultry.—Thermometer in the shade 82°: river water 85°.

*Appearance of the river eastward about three miles above San Francisco.*

ᵥ ᵥ ᵥ Grassy Islands and Banks.

The river when most swollen in the rainy season, which generally happens in October, is according to the Padrone's account, at least six or seven feet deeper than at present, and in the dry season next month, (April) it is so shallow below the Colorado branch, that for miles the bongos are obliged to be dragged over by main force through temporary channels.

Our Ramas were willing, hard working fellows; but we found it necessary to give them extra rations, and with so much exertion I think they required it.

About half an hour past noon, we passed the Rio Machado, where we first saw the San Carlos Hill, which is certainly the most remarkable one we had yet seen, its base terminating on the southern bank, its summit and contour not to be mistaken, affording an excellent landmark to distinguish the river of that name, beyond which it is situated about two miles: its estimated height is about 2,000 feet. The general features of the river, as far as the San Carlos, were not different from

what we had observed since yesterday. At 2 P.M. we landed to dine on the Island of San Carlos, situated opposite the mouth of the river of that name, distant from Point Arenas forty-six miles; its mode of formation and materials are the same as those we had hitherto seen. The width of the San Carlos river is here about two hundred yards, and its rate of stream equal to that of the main river, in fact is (the padrone says,) the chief cause of its increased velocity, as the river San Juan above this conflux becomes at once slack. After getting sights for longitude, we again took to our canoe, at 3h. 30m. P.M., when the heat was excessive, and breeze light, paddling along at a greater rate over the ground than we had hitherto done.

Beyond the San Carlos the river is more picturesque and beautiful, its waters gently gliding along at the rate of less than a knot, deeper, darker, and more in accordance with rivers of magnitude: its sluggish motion I am rather inclined to attribute more to the suddenly increased depth of its bed, than as the padrone supposes to its being above the junction of the San Carlos. Here the banks are bold, precipitous, (ten, thirty, and forty feet high,) and less encumbered with decayed vegetable matter; the hills in the distance rising to three or four hundred feet, and densely overgrown to their summits with trees of most majestic appearance. The breadth of the river is here about a hundred and fifty yards.

At sunset we were about a mile below Chorero Creek, and saw the hills of that name rising about 1,500 feet on the north side of the river. We remained for the night on a small dry sand shoal, situated above the Isla Campana, at the foot of the first rapid.

*Wednesday* 11*th.*—At 6 A.M., we attempted the first rapid, called the Machuca, sixty-two miles distant from Point Arenas, by poling and paddling along the northern bank; its velocity does not at any part exceed five knots, so that we had not much difficulty to overcome. The bed of the river is formed of small rocks; and at present very shallow; but in the rainy season these are covered.

At 6h. 40m. we were again in still water, where the stream was running at the rate of two and a half, or two and three-quarter knots, the banks gradually rising as we approached the Balas Rapid, from six and eight, to twenty and thirty feet on the southern bank. At 8h. 20m. A.M. we arrived at the foot of the Rapid de los Balos, where the Indians laid in their paddles and commenced poling, by which means we ascended with equal facility, and almost immediately came to another, the Rapid del Mico, which does not require a distinct name, as they are evidently only continuations of each other, and as the maximum velocity of these, so called Rapids, does not exceed five and a half knots, and the bed of the river is pretty clear of rocks. I may further add that the phrase "*acceleration of stream*," would convey a better idea of this part of the river, than the word "*rapid*," which although synonymous, has, as a conventional term too strong a meaning, at least in the present state of the river.

By this time, the morning mist which barely enabled us to see across the river had dispersed, and we ascended the Mico Rapid as easily as

the two preceding ones, and by the same means. At 9h. 30m. A.M. we reached the Rio Bartolo, and stopped to breakfast, the Indians so voracious after their morning's exertions, that we found it again necessary to give them a further additional allowance. There is no perceptible stream in this river. We cut a few light spars for the canoe, preparatory to entering the Lake, and then resumed our progress up the river, having beautiful weather and little wind till nearly noon, when the sea breeze set in at S.S.E. At noon, we were about one mile and a half below the Rapid del Castello Viejo. Temperature of the air 82,°—of the river nearly the same.

*Appearance of the banks at the Rapid Del Castello Viejo.*

* * Site of the Old San Carlos Fort, now entirely covered with bushes.

Above the river Bartolo, the strength of the stream appeared to be from one to one and a half knot, the banks much the same; beyond which at a short distance inland, hummocks, of fifty and one hundred feet may be seen, covered with trees of moderate size.

It was nearly one in the afternoon when we saw the point on which the old fort San Carlos once stood, and soon afterwards passed the island Juana, where a temporary hospital was established for the sick in Nelson's memorable expedition against the Spaniards. Here we met a large bongo, which had left Granada seven days previous, and overtook another which had started from the town of San Juan about the same time : mutual greetings were exchanged by the padrones. At 1h. 15m. P.M. we commenced to ascend the rapid of the old Castle, and in the course of fifteen minutes, had got beyond it by means of tracking along the south side of the river. This rapid has a mean fall of nearly five feet, runs at the rate of eight knots, and extends across the whole breadth of the river, which is here about a cables' length. By holding the chronometers, (which I may here mention were placed in a painted canvas covered box, and packed in saw-dust,) suspended in our hands, while the canoe was tracked up the side of the river, they sustained less jerking motion than if we had carried them along the banks. The bongos in ascending this rapid, are obliged to be lightened of part of their cargo.

The site of the fort is visible at the distance of one and a half, or one and three-quarters of a mile, but soon it is shut in by a point, and

by keeping on the northern bank of the river will not open again till abreast of that point, when you will be within a cable's length of the castle, now so entirely overgrown with jungle, that we could not discover any portion of its walls. This being the scene of our gallant countryman's early career made it to us peculiarly interesting.

As soon as we had fairly got beyond this most formidable of all the rapids, which in my opinion well deserves the name, we resumed our paddles with good effect, the stream now running not more than one knot in the middle of the river, and on the margin scarcely perceptible; the banks are again low, and lined so thickly with the same grass growing to the water's edge, as to render landing almost impossible: the heights of the trees were now between 70 and 130 feet.

At 2h. 50m. P.M. landed on the north bank, at a place called Santa Cruz Chica, about two miles above the Castello Viejo, where we stopped to dine, under a delightfully shady tree. Here we found a fire already burning, which had probably been left by the bongo we met this morning: the heights of the banks are here about eight feet. At 3h. 50m. P.M. we resumed our paddles, Indians working admirably: the banks very low as far as the Toro rapid, in some places nearly on a level with the water, lined with the same grass, and a species of palm; the larger trees fifty or sixty feet high. The stream still runing at the rate of a knot in the middle of the river; but not at all near the banks. At 5h. 30m. P.M. found ourselves beyond the Toro rapid, seventy-seven miles from Point Arenas, which is, I think, the smallest and least violent of them all ; the acceleration of stream in the centre being not more than four knots, and few rocks presenting themselves above water. The width of the river at the head of this rapid is about a cable's length from bank to bank.

Beyond the Toro rapid the banks of the river are still lower, and in many places the trees are growing out of the water, and lined by palms on each side in such close and compact order as to form an almost impenetrable barrier, conveying not a bad idea of a well set hedge: the highest trees do not exceed 40 feet. The stream is here very slack.

At sunset we were about one mile and a half above this rapid, where owing to the swampy nature of the banks, we found the musquitos very troublesome.

I may here remark that from the river Machuca, as far up as the river Savalos which we had just passed, the bed of the Rio San Juan is studded with fragments of rock, while all below is chiefly composed of sand and mud.

At 8h. 30m. we passed the Isla Chica; at 9h. the Isla Grande, where there are hills of 800 feet altitude adjacent to the northern bank of the river. Being very anxious to get to San Carlos in time for morning observations, we gave the Indians an extra allowance of grog by way of encouraging them to paddle till midnight, when we found ourselves nearly abreast of the river Melchorezto, and anchored in the middle of the stream, there being no landing, and the musquitos very troublesome.

To-day we passed two creeks, where there are settlements of Palo de-Arco, or Ajo Indians; why so named, I have not been able to learn, unless from the circumstance of their using the garlic wood, (as the latter name would seem to imply,) with which the Indians sprinkle their huts in their exorcisms. This tribe has been much persecuted by the Nicaraguans, and still maintain their independence. One, whom we concluded to be a chief, from his fantastical head dress of macaws feathers, and general appearance, was loud in his professions of friendship towards us as *Englishmen*, and insisted upon knowing our names, which it appears is a practice among them to adopt of every stranger they take a fancy to. The padrone said he was in the habit of meeting one on this river, whom he identified as the same individual, but never under the same name ; in the short space of a month he had assumed no less than four or five cognomens.

The banks of the river since we left the Toro Rapids were low and swampy, more particularly so abreast of the Isla Grande, where the thick grass and palms render landing quite out of the question; there are a few trees on the south side.

To level this part of the river, would be a work of great labour, in fact, I doubt if fit spots could be selected for stations, without having recourse to artifical foundations. Here we saw numerous birds of the grallator tribe. Much dew and little wind all night.

*Thursday* 12*th*.—Away at daylight,—general features of river the same as yesterday,—stream flowing three-quarter knot. At 7h. 10m. reached Isla de Canon, an hour after passed the Isla Padre. Here we first caught a glimpse of the lake, and the low point of San Carlos. Stream at the same rate as yesterday,—river about a cable's length wide.

At 9h. A.M. we landed near the huts of San Carlos, distant 140 miles from Point Arenas, and immediately got observations.

On enquiring for the commandant, I was gravely informed by a ragamuffin looking soldier who received us, that he could not at present be seen, having, with his wife, made too free with the bottle! Surely thought I, there is a time for all things, and we had recourse to patience. Finding that our voracious "Ramas" had reduced the salt provisions to a solitary half piece, I sent the padrone to purchase some jerked beef and plantains.

With the exception of a long nine and a half foot brass 18-pounder lying dismounted on the beach, we could not discover any appearance of a fort on this point, till conducted by our padrone through a wilderness of bush we came to the castle of San Carlos, once considered the Gibraltar of the lake; but now a heap of ruins, and so entirely overgrown and surrounded with trees, that it cannot be seen from any point in the neighbourhood, although only a few yards distant from the beach. When first built, and in good order, it must have been a formidable little place, having commanded the river for at least two miles; but the motto, *tempus edax rerum* was here verified. Its guns are now quite unserviceable; the walls appear to have been composed of small stones, gathered near the spot and cemented together; the

general figure is oblong, it is surrounded by a ditch, and strengthened with piles. The officers' quarters appear to have been situated within the walls.

There are also three dismounted guns, two of which are brass, and several piles of shot, lying strewed about in all the infamy of inglorious rust. This appears the most commanding position of the river, although its elevation is only about fifty feet, while that of the fort is one hundred.

On our return from visiting these remains of Spanish grandeur, we were met by a coloured man, saying "that the commandant wished to see us." I immediately repaired to his quarters, and found him extended on his cowskin couch, looking very "seedy" and debauched, attended by his wife, who grew extremely loquacious in prompting the questions which her poor bewildered husband put to me. Having explained to him the object of our visit, he appeared to be quite satisfied, and insisted no longer on a passport which he at first demanded : such a burlesque on military authority I never saw.

Whilst breakfasting on the beach we were highly amused, and not a little surprised to see half a dozen decent looking women, escorted by two as respectable men, deliberately strip themselves of all their habiliments in the most unblushing manner, and then commence their morning ablutions, totally regardless of us, or of their own companions ; a proof perhaps, that innocence knows no shame, rather than a want of modesty. The whole village does not contain more than six huts, tenanted by only four families, so that with the exception of the old commandant and his better half, we must have seen the whole population on this interesting occasion.

From the Morro point we distinctly saw the peaks of Madura and Ometape rising abruptly from the lake, conical and well defined, the heights of which we subsequently found by calculation to be 4,190 feet for the former, and 5,050 feet for the latter.

In the afternoon the sky was completely overcast, and we had to wait till the next day for equal altitudes. My attention this afternoon was attracted by a sudden reflux of the waters, the lake, having fallen nearly a foot since we landed; this the padrone said was owing to the wind, which during the day had been blowing rather fresh at S.E.b.E. At night musquitos very annoying—dew falling heavy.

*Friday* 13*th.*—We noticed here the remains of a Catholic church or chapel, and its great bell that was wont to arrest the pious traveller in his journey to and from the Lake, now lies prostrate at the foot of the belfry, still in a good state of preservation; but evidently having long since ceased to wag its monitory tongue! The remains of a sort of pavement, seem to indicate the site of a considerable town.

The bongo we passed two days ago, arrived at this place this morning, and a canoe laden with corn and other provisions from the Island of Solentinane, where it is said there are several agricultural settlements. Her crew consisted of three women and a male coxswain. The former paddled, and appeared to be quite adepts in their occupation; they were remarkably clean in their dress and person, the latter by no means

deficient in point of beauty; but I cannot say so much for their modesty and morals.

*The entrance of the Lake Nicaragua. Island Sapote on the left, site of Fort San Carlos on the distant high land.*

The commandant must have been either very studious, very sleepy, or very tipsy, for we did not see the light of his countenance, nor hear of him since our audience of yesterday. In such a place as this he cannot often have an opportunity of showing off his importance, and on that account one would have expected a little more attention and civility, but, perhaps, he had not yet recovered from the effects of his indulgence. We remarked this morning, that with the wind at E.N.E., the lake had again risen to its former level, proving that the padrone was quite right.

Sounding round the Morro Point, I found that the depth varies from one and a half to two fathoms: the best guide in the dry season when there is only six feet in the deepest channel, "is," the padrone says, "to steer direct from this point to the northern extreme of Solentinane."

Having obtained observations we left San Carlos at 3h. 45m. P.M., paddling along the north shore of the lake till we came to Lime Point, about one mile and three-quarters distant from the Morro Point, when we made sail, put the log over, and steered N.b.W. (magnetic,) with the wind at E.N.E., No. 4 or 5; weather exceedingly fine. Running along shore at the distance of one and two miles, the land appeared to be low and swampy, near the margin of the lake, but gradually rising to one and two hundred feet, and overgrown with a few trees of small growth; here the soundings were ten feet, and then gradually decreased till we came abreast of Punta del Toole, about two miles and a half from Cay Bokeet, where a small rivulet, named Rio de las Marias, empties itself. At this time the patent log showed 15·2 miles. At 9h. 30m. P.M., we arrived at San Miguelito where we remained for the night, the weather fine.

*Saturday* 14*th*.—At daylight we looked round the settlement of San Miguelito, which is a small village containing about fifteen huts, situated on a declivity eighty or one hundred feet above, and less than half a mile from the lake: a few acres of land surrounding the huts have

been cleared away, leaving a pleasant open grass plot, where the soil appears to be rich and fertile.

We saw few men at this place, their occupation being pastoral, they had left their homes before daylight to look after their herds: grazing on the neighbouring hills and savannas, and would not return till the afternoon to take their siesta. The women, of whom we saw several, are many of them rather pretty and well dressed, their principal garment being a sort of petticoat, and their busts slightly covered with a thin jacket, giving their "*tout ensemble*" an air of gracefulness, which I little expected to have met in such a place. Others were bathing as usual in their birth-day suit, or in other words, in all their naked beauty, near the spot of our observations.

Here we found a bongo laden with cheese, jerked beef, &c., the produce of the adjacent country. Of the latter we found it again necessary to purchase a "roba", equal to 25lbs., which cost three-quarters of a dollar: bullocks may here be had for four and a half dollars, fowls for one-quarter, eggs and milk for a mere trifle.

The height of Solentinane peak, &c., I found to be eight hundred feet, and San Bernardo three hundred and seventeen feet high.

The first point we passed is called Padernal, where there are a few houses on its western extremity, said to be a good place for live stock; but having supplied ourselves at the place from which we last started, we did not land here.

Again running along shore at the distance of a quarter, and sometimes one mile;—here there is nothing striking in the features of the land, which near the beach is low, but not swampy, and strewed with small detached pieces of rock, evidently bearing the impress of volcanic action. At a short distance inland, hills of one and two hundred feet begin to rise, not much wooded, but thickly grass-clad, and affording pasturage to numerous herds of cattle: here we saw several small huts, the residences of drovers.

Passed the small river Guapola, at two P.M. landed to dine on Punta de la Haing, where we afterwards obtained observations; and at four P.M. sailed with a delightful sea breeze, the sky nearly cloudless.

The hills on this side of the lake, divested of forest clothing, remind me of those of Portugal, and the north coast of Spain. At sunset we passed a bongo going to the eastward, but did not speak her: at this time saw the peak of Ometape clear, and well defined, its summit having all the appearance of a crater.

The night was unusually clear and beautiful, not a cloud to be seen, wind easterly, and canoe gliding along at the rate of four knots. At eight P.M. passed Nanci Tal Cays, and at 9h. 30m. landed for the night at Punta Pederosa.

Between this and Punta de la Haing are three rivulets, viz. Rio Oyate, Rio Rapel, and Rio Burro Negro, discharge themselves into the lake.

*Sunday* 15*th*.—At daylight proceeded on our voyage with an easterly wind and fine weather, steering along shore at the distance of one and one and a half mile. The mountain of Alto Grande was now seen

ahead, a beautiful object, and significant of its name, clothed to its summit with the brightest verdure, where thousands of cattle might be reared; its height we since determined to be 3,149 feet. There is no appearance of any thing like cultivation along the whole of this side of the lake, all is natural pasturage and meadow land. The padrone informed us that the inhabitants on the north side of the lake depend in a great measure on those of Ometape for provisions, their own soil not being considered sufficiently productive; but I should rather be inclined to ascribe the cause to their want of industry.

At 8h. 30m. A.M. we passed Point Myalli; and the river of that name, and soon afterwards were abreast of Point Congregal, between which and the former, the land is low and swampy, and so continues as far as the Isla Muerta; but beyond the Rio Wapenolapa which we passed at 10 A.M., it is gradually acclivitous till within two or three miles of the high land of Santa Cruz.

The breeze began now to freshen so much, that our canoe was in danger of being swamped, running before a short topping sea, by which and the rain together, we were completely drenched.

At 11h. A.M. we arrived at the small island of Muerta, where I took observations and breakfasted, and we dried our clothes, the rain still descending in occasional showers, with heavy gusts of wind. From this position, (about fifty feet high,) we saw the volcanic mountain of Mombo Tombo, situated north of Leon on the margin of the Lake of Nicaragua. At 2h. 30m. P.M. took our departure from Granada, with the weather still so squally, that we were soon obliged to shorten sail and keep away, shipping a good deal of water. In the course of the afternoon, however, it moderated so much that we were again enabled not only to carry all sail, but found it necessary to resume our paddles, in order that we might reach Granada at a reasonable hour. Temperature of the lake 81°—air 79°.

The mountains and plains to the north-west began now to appear in all their native verdant beauty, unlike anything among the West India Islands. Instead of being densely overgrown with impervious forests, they are clad "in Nature's universal robe," and seem to invite the location of the settler. The peaks of Ometape, Madeira, and Mombo Tombo, must I imagine, appear very distinct and remarkable objects from the Pacific. The hill of Granada, whose height we have since ascertained by calculation to be 4,480 feet, above the level of the lake, must also be very conspicuous at the same distance; but Mr. Bailey thinks otherwise. In crossing from the Isla Muerta to the town of Granada, we found the soundings to run from six and a half to six fathoms. At 7h. 30m. P.M. we landed on the beach, near the old battery of Granada, and hauled up the canoe. Taking with me the padrone as a guide aud interpreter, I immediately waited upon Mr. Bailey, (a Lieutenant of Marines on half-pay, long resident in this country,) whom I found with Mr. Higgins, a respectable American merchant, or rather agent, lodging at a Mrs. Shepherd's. The former received me with all the kindness and cordiality of a countryman, and at my request conducted me to the house of the Gefe Politico, or chief

authority, but finding that he had left town for his country estate, I delivered my official letter of introduction from the commandant at San Juan, with a promise that it should be immediately forwarded to him. Having done what I conceived, and what Mr. Bailey, who knows the manners of the country, considered quite sufficient in the way of politesse, we returned to observe for latitude, &c. To guard against any accidents that might happen to the chronometers, as well as to keep the Indians together, I thought it prudent, instead of accepting Mr. Bailey's invitation to take up our abode with him, to remain by the canoe all night, in which, as hitherto, we had managed to sleep tolerably well.

*(To be continued.)*

---

## Turkish for Tars, No. VI.—*By Mahmouz Effendi.*

(Continued from page 451.)

When we consider that the population of the Turkish Empire, reaches *thirty-six million, and two-hundred and eleven thousand,** it is no wonder that British manufacturers regard the Sultan's territory, as one of the very best fields for the consumption of the goods they produce, and in fact it is so. But the oft repeated call for the reduction of the Navy, echoed by some indeed of the very manufacturers who are the most interested in retaining this Oriental market, and in preserving the Ottoman dominions in all their integrity, is the very step which injures not only England and Turkey, but above all, benefits Russia. For it is evident enough that without a strong *naval* force in the Mediterranean, England cannot prevent, or even perhaps delay, Russia's gradual advance to Constantinople; and wherever Russia advances, she of course forces a market for her own manufactures, and so far excludes the British. The Russian never has, and we may depend never will, abandon the hope that Moscow, (or some other of his cities), may become a second Manchester; yet, he would rather if possible set up his steam-engines somewhat farther south, that is nearer the sunny sea of Marmora, *where*

* Population of Turkey, 36,211,000, viz: Turkey in Europe, 15,511,000, and Turkey in Asia, 20,700,000. In Asiatic Turkey there are three million christians; and in Turkey in Europe the population is subdivided as follows:—

| | |
|---|---|
| Roumelia and Thessalia | 2,000,000 |
| Moldavia | 1,400,000 |
| Wallachia | 2,000,000 |
| Servia | 1,011,000 |
| Bosnia and Herzegowina | 1,600,000 |
| Albania | 2,200,000 |
| Bulgaria | 2,000,000 |
| Thrace | 1,000,000 |
| Isle of Crete | 220,000 |
| Isle of Cyprus | 90,000 |
| The other islands | 390,000 |

*coal abounds.** He knows well enough that factories should be brought to the neighbourhood of coals, rather than coals be carried to the locality of factories.

To prevent John Bull being hood-winked, and insidiously taught to believe that Turkey is very far away, and of very little use to England, it is merely necessary to point out her unrivalled geographical position, her immense population, her resources, and her wants; and then to bear in mind that steam-vessels are at this moment only one fortnight in conveying British bales from Southampton to Smyrna, which next to Constantinople is the best emporium in the east, and in itself contains a population of 140,000 souls.†

Turkey in Europe contains more than fifteen million inhabitants, and Turkey in Asia exceeds twenty millions. To these thirty-six million with scarcely any exceptions the Turkish language is known, and by most of them is preferred as their common mode of speech. For even the Greek Rayas, (in Asia at least,) are often found totally ignorant of Greek. Not in Smyrna and such polyglot cities; but certainly at no great distance up the country. And yet though Turkish is so widely diffused, it is not yet taught in England! In a few years it is to be hoped this great reproach will be removed "to be washed in Lethe and forgotten." *Quæ cum ita sint, Patres Conscripti* (as we were accustomed when good little boys to read in the classics,) let us say no more about it, but proceed with our stump of a pen to offer a few more pages of *Turkish for Tars.*

Every one in the West of Europe is aware that the city which the

* And the *Times* of 1st May, 1850, reports the discovery of a large coal mine near Erzeroum, which will of course supply the steamers visiting Trebizonde.

† Black Sea.—The following statement affords a comparative view of the proportion in which the trade of the Black Sea is at present distributed amongst the various commercial nations of Europe. The total number of vessels *arrived* at Constantinople in the year 1849, was 6,294, of which 466 were steam vessels. Not a single steam vessel had ever visited Constantinople prior to 1828, now but twenty-two years ago. These 6,294 vessels bore the following flags.

| | | |
|---|---|---|
| Greek.....2,311 | Ionian .....220 | Norwegian.....15 |
| English .....1,076 | Turkish ... .....212 | Roman States.....15 |
| Austrian .... ..... 728 | Mecklenburgh..... 48 | Hanoverian .....10 |
| Russian ..... 699 | Neapolitan..... 39 | Prussian.....10 |
| Sardinian..... 546 | Tuscan ..... 30 | Netherlands..... 7 |
| French ... ..... 241 | Egyptian ..... 21 | &c., &c., &c. |

Of the 466 steamers which arrived in 1849, 156 were Turkish, 153 Austrian, 68 English, 49 French, 39 Russian, and 1 Tunisian.—*Daily News, March 14th,* 1850.

The *Morning Chronicle,* of the same date contains a "table showing the number and tonnage of steamers built and registered in the United Kingdom, and in the British Colonies, and their progress *in each year* from their first introduction in 1814 to 1848." From this table it appears that in the British Empire in 1814, there were but two steamers; in 1818, 27; in 1828, 293: in 1838, 722; and in 1848, 1,253 steamers. The table is long, but highly important. Constantinople is set down in an annexed list as having fourteen steamers and Alexandria (Egypt) eight. Russia figures as now having 65, and Austria 16. *Morning Chonicle, 14th March,* 1850.

English call CONSTANTINOPLE is known to the turbaned Turk by the name of STAMBOUL; but many persons may have little idea that within a hundred, or even fifty miles of that unrivalled capital, the subjects of the sultan know the place *only* by the latter appellation, and have indeed never heard of the first. We remember when the *Lyra* was totally wrecked, a little below the Danube, in the winter of 1837, the master could not make the natives who thronged the shore at all comprehend the destination to which he wished to be forwarded. "Constantinople" was pronounced by him in every conceivable and possible tone and way, as "Costantiniyè", "Constantinopoli", and so on; but it was all of no use, till one of his crew happened to utter the magical word "Stamboul", when the puzzled browskins of the Moslems, that during the enquiry had knitted into more wrinkles than are ever seen in a clued-up-topsail, or a brailed up spanker, became as it were "sheeted home," and the "drop" of their foreheads incontinently shone again as smooth and unruffled as an uncracked Venetian looking-glass. Stamboul was of course well known to them all, and to Stamboul the *naufragès* were all in due time consequently conducted. Now, the Turkish names of other places may from time to time prove equally useful to our sailors, or tourists, or merchants, for which purpose and reason we have prepared the following

*Geographical and Topographical List.*

| *English.* | *Turkish.* |
|---|---|
| Aboukir | Aboukhor |
| Abyssinia | Habesh |
| " | Abish |
| Acre | Akka |
| Aden* | Aden |
| Adrianople | Edirnè |
| Adriatic | Venedik Keurfuzi |
| Affghanistan | Evghan-istan |
| Africa | Afriqa |
| " | Djeziret-ul-Magrib |
| Agria or Agram | Egrè |
| Akalzik | Akhsekha |
| Albania | Arnaoud vilaïeti |
| Albania, Lower | Yania |
| Alcala (Spain) | Kalati yahsab |
| Aleppo | Haleb |
| Alexandretta (Syria) | Iskenderoun |
| Alexandria | Iskenderiïè |
| Alexandria Troas | Eski-Stamboul |
| Algiers | Djezair |
| Alhambra (Spain) | Medinet-ul-hamra |
| America | Yeni-dunia |
| America (North) | Ameriqai shimali |
| America (South | Ameriqai djenoubi |
| Anatolia | Anadholou |
| " | Bilad-ur-roum |
| " | Roumïèi Soughra |
| Ancona | Anqona |
| Andalusia | Oundoulous |
| Angelo, Cape St‡ | Menefshè bourouni |
| Angora | Anqyrè |
| " | Engury |

* This word is thus given in *Kieffer and Bianchi's Dictionnaire, Turc-Francais*, vol 2 page 241.

1. Election de domicile. 2 Demeure fixè. 3. Eden, paradis terrestre. 4. Nom d'une ville appelèe aussi *Adan* et *Aden ebien.*

I am afraid our gallant red-coats don't find Aden tout à fait un paradis terrestre. The word *Aden* also signifies the *shore* of the sea or the *bank* of a river.

‡ Menefshè or benefshè, signifies a violet, and the Cape itself being celebrated for storms, a violet tint often enough adorns the visages of timid tars in its vicinity. The ancients had a proverb running thus "Cum ad Maleam deflexeris obliviscere qua sunt domi".

Cape St. Angelo, or the ancient Malea and Menefshè Cape are one and the same place.

| *English.* | *Turkish.* |
|---|---|
| Amsterdam | Amsterdam |
| Anti-Lebanon | Shoof |
| Antioch | Anthakiiè |
| Arabia | Djeziret-ul-Arab |
| Arafat | Djebeli arèfat |
| Ararat* | Djoudi |
| " | Aghyr-Dagh |
| Araxes | Ares |
| " | Kara su |
| Arbela | Erbel |
| Archipelago | Adhaler denyzi |
| " | Adhaler arasi |
| " | Bahri ebiaz |
| Armenia | Ermeni vilaiti |
| Armenia (Little) | Ak koïounlu |
| Ascalon | Asqalan |
| Asia | Açïa |
| Asia Minor | Bilad-ur-roum |
| Athens | Atinè |
| Atlas, Mount | Thal |
| Austria | Ostria memleketi |
| " | Nemtchè valaieti |
| Azof, Sea of | Azak denizi |
| Babylon | Babil |
| " | Babilioun |
| Bagdad | Baghdad |
| " | Medinet-us-selam |
| Balbec | Medinet-ul-shems |
| Balkan | Balqan daghleri |
| Balkh | Belkh |
| Baltic | Balthyk denyzi |
| Barbary | Maghreb |
| Bavaria | Bavira memleketi |
| Belgium | Beldjika |
| Belgrade | Belighrad |
| Berlin | Berlin |
| Bessarabia | Boudjak |
| Beyrout | Berout |
| " | Verout |
| Black Sea | Kara Denyz |
| " | Bahr ul Kyrim |
| " | Bahri esved |
| " | Bahri nilghoun |
| Bog | Ak Su |
| Bohemia | Tcheh memleketi |
| Bona | Bounet |
| Bosnia | Bosna |
| Bosphorus | Kara denyz boghazi |
| Bougia | Bedjaïè |
| Brusa | Boursa |
| " | Niloufel sui |
| Brussels | Brouksela |
| Bucharest | Boukresh |
| Buda | Boudun |
| Bulgaria | Bulghar memleketi |
| Bussora | Basra |
| Cadiz | Kadiz |

| *English.* | *Turkish.* |
|---|---|
| Cairo | Eski misr |
| Candia | Kandiè |
| Canea | Khania |
| Cape Black | Kara bouroun |
| Cape of Good Hope | Umid bourouni |
| Cape Janissary | Yenitcher bouroun |
| Cape St. Angelo | Menefshè bourouny |
| Cappodocia | Djenk-vilaïeti |
| Carthagena | Karthadjena |
| Caspian† | Kouzghoun denyzi |
| " | Guilan denizi |
| " | Bahr ul khazer |
| " | Bahri shirvan |
| Cattaro | Kotor |
| Caucasus | Yelpouz dhaghi |
| Caubul | Kiabul |
| Cephalonia | Kephalonia |
| Cerigo | Tchoqa adhasi |
| Cerigotto | Kutchuk tchoqa adhasi |
| Ceuta | Sitta |
| " | Sitta boghazi |
| Ceylon | Seilan |
| Chalcedon | Kadi Keui |
| Chesmè | Tcheshmè |
| China | Tchin |
| Cochin China | Ma-tchin |
| China, wall of | Seddi Khatai |
| Cilicia | Kalioukia |
| Circassia | Tcherakésè |
| " | Tcherkeslik |
| City of London | Londra Shehri |
| City of Smyrna | Izmyr Shehri |
| Comorn | Komoran |
| Constantinople | Istambol |
| " | Islambol |
| " | Kostantyniïet |
| " | Bozanthyè |
| Copenhagen | Kopenhagh |
| Corfu | Korfa |
| " | Korsula |
| Coron, Gulf, | Koron Keurfuzi |
| Cos | Istankeui |
| Crimea | Kyrim |
| Crimean Peninsula | Krim-djeziresi |
| Cyprus | Kybris |
| Damascus | Dimeshk |
| Damietta | Dimiath |
| Danube | Thouna Sui |
| " | Nehri thouna |
| Dardanelles | Guèliboli boghazi |
| " | Ak denyz boghazi |
| Dardanelles Castle | Boghaz hissari |
| Dead Sea | Louth denyzi |
| Denmark | Danimarka |
| Don river | Ten Sui |
| Dneiper | Niper |
| " | Ozy Sui |

* *Vide Rich's Koordistan, vol.* 2, *page* 123, *for a curious note on Noah's Ark.*

† "Kouzghoun denyzi" signifies literally the "Sea of Crows."

| *English.* | *Turkish.* |
|---|---|
| Dulcigno (Adriatic) | Eulgun |
| Durazzo | Duradj |
| Echinades | Singhyn adaler |
| Erivan | Revan Shehri |
| Egypt (see Cairo) | Misr memleketi |
| England | Ingliz memleketi |
| " | Inguilterra |
| Enos, Gulf | Enoz Keurfuzi |
| Enos, Port | Enoz iskelessi |
| Ephesus | Aia Sulouk |
| Erzeroum | Erz-Roum |
| Euphrates | Furat |
| Europe | Evropa |
| " | Roumeli |
| France | Fransa memleketi |
| Florence | Florantcha |
| Galata | Ghalatha |
| Galatha Tower | Ghalatha koullèsi |
| Gallipoli Straits | Guèliboli-boghazi |
| Ganges | Ghandj |
| " | Ghangha |
| " | Gank |
| Gaza | Ghazzet |
| " | Ghazzeh |
| Georgia* | Gurdj-istan |
| Germany | Alaman-memleketi |
| Gibraltar | Djebel-ul-Tharik |
| " | Djebel ul-Feth |
| " (strait of) | Djebelterra boghazi |
| " | Bab ul-esvak |
| " | Sitta boghazi |
| " bay of | Djebilterra Keurfuzi |
| " | Djebilterra atchik limani |
| " town of | Djebilterra shehri |
| " fortress of | Djebilterra hissari |
| Goa | Guvè |
| Greece | Younani memleketi |
| " | Roumeli |
| Guadalquiver | Vad-ul-Kebir |
| Gulf of Coron | Koron Keurfuzi |
| " Enos | Enoz Keurfuzi |
| " Moudania | Moudanieh Keurfuzi |
| " Napoli | Malvaziè Keurfuzi |
| " Salonica | Selanik Keurfuzi |
| " Smyrna | Izmyr Keurfuzi |
| Hague | Haiè Shehri |
| Holland | Nedirlanda |
| Hungary, Upper | Orta Madjar |
| Hungary | Ungerous memleketi |
| " | Madjar memleketi |
| " | Madjar vilaïeti |

| *English.* | *Turkish.* |
|---|---|
| Illyria | Isklavoun vilaïeti |
| India | Hindoubar |
| Indies, East | Hindi-doghousi |
| " West | Hindi gharbi |
| Indus | Abi-hind |
| Ireland | Irlanda |
| Ispahan | Isfahan |
| " river | Abi-zinderoud |
| Italy | Italia |
| " | Thalia |
| Jassy | Yash Kasabasi |
| Jericho | Medinet-ul-belsan |
| " | Ryha |
| Jerusalem | Bèit-ul-Moukaddes |
| " | Ourshelim |
| Jordan | Herdoum |
| " | Ghour |
| " | Arden |
| Kichinev | Kavshan |
| Kourdistan | Kourd-istan |
| Lake Van | Van gueuli |
| Larissa | Yeni shehr fener |
| Leghorn | Alighourna |
| Lavalone | Avlonia |
| Lebanon | Lubnan |
| Lemnos | Limini |
| Lepanto | Inèbakhti |
| Levant | Dhougou |
| Libya | Lubet |
| Limasol | Linmesoun |
| Livadia | Livadia |
| London | Londra shehri |
| Lyons | Liïoun shehri |
| Macedonia (see Nicomedia.) | Makedoun |
| " | Filibè vilaïeti |
| Madagascar | Mudaghashgar |
| Madrid | Madrid |
| Magnesia | Aidin guzel hissar |
| " | Manisa |
| " | Inek bazar |
| Majorca | Maiourykat |
| " | Maiorka |
| Maldives | Maldiv r adhaleri |
| Malta | Maltha adhasi |
| Malta, Straits of | Maltha boghazi |
| Malve (India) | Malvai |
| Malvia river | Melviet |
| Maritza | Merridj |
| Marmora Island | Mermerè adhasi |
| " Lighthouse | Mermerè feneri |

We must here break off; deferring to a future *Nautical* the conclu-

§ The word *sitan* or *istan* must strike on the ear as a termination of very frequent occurrence as in Hind-istan, Affghan-istan, Gurdj-istan, Kourd-istan, Frank-istan, and so on. It signifies (D. T. F. vol. 1, page 650) when placed after substantives a place fit for something or where such thing abounds, or is contained or situate. Thus Gul-istan a place abounding in roses; Kourd-istan the country of the Kourds; Frank-istan the country of the Franks.

sion of our Geographical List, and now referring the reader to the vol. for 1849, pages 627, 628, for a few observations that bear upon the subject of the present paper.

(*To be continued.*)

---

## Influence of the Moon on the Earth's Atmosphere, *translated from the French of Mr. Arago, by Com. L. G. Heath, R.N.*

(Continued from page 439.)

### *On the influence of changes of the Moon upon changes of Weather.*

There is nothing arbitrary or uncertain in these investigations of Messrs. Schubler and Flaugergues; any two calculators with the same data must have arrived at the same conclusions. Can this be said of the question we now propose to discuss? What constitutes a change of weather? Some meteorologists, believing in the influence of the phases, will think themselves authorized to class under this head every change from calm to wind, from light winds to strong, from a clear sky to a slightly clouded one, or from a slightly clouded to an overcast state of the heavens, &c., whilst others will require that the changes shall be much more marked and decided before they are registered as such. How on so vague a matter can a rule be laid down to which all will agree? I have thought it necessary thus early to notice this difficulty, in order that no one may be led to consider the results I shall arrive at, as standing upon the same ground of certainty as the numerical results of the table relating to the number of rainy days and to the height of the barometer.

The method adopted by Toaldo in the discussion of nearly half a century's observations at Padua was as follows.

He entered in one column all those new moons in each year, which had been coincident with a change of weather, and in another all the remaining ones, that is to say, all which were unaccompanied by a change of weather. If the sums of these two columns had been exactly, or even very nearly in the same proportion as numbers obtained in a similar manner for every other day of the lunation, it would have followed that the new moon exercised no influence upon the changes of weather.

The following is the proportion between the number of days in which the weather changed and the number in which it remained settled,

| | |
|---|---|
| At New Moon | 6 to 1 |
| Full Moon | 5 — 1 |
| First Quarter | 2 — 1 |
| Last Quarter | 2 — 1 |
| Perigee | 5 — 1 |
| Apogee | 4 — 1 |

It is perhaps unnecessary to dwell upon the true signification of these numbers, they show that on an average,

Out of seven new moons, there would be six accompanied, and one unaccompanied by change of weather.

Out of fourteen such events, there would be twelve on which the weather would change, and two on which it would remain settled.

Out of twenty-one, we should find eighteen on one side and three on the other, and so on always in the proportion of six to one.

In the same manner, if we considered the quarterings as sure signs of change of weather, we should,

In 3 such events be right twice, and wrong once.
" 6 " 4 times " twice.
" 9 " 6 times " thrice.

If the phases were ranged in the order of their respective influences upon changes of weather, they would stand

New Moon... .....(maximum)
Full Moon .....
First and Last Quarters...(equal minimum)

The perigee has the same effect as the full moon.

The apogee double the effect of the quarters.

These results agree tolerably well with popular opinion, and they are moreover founded upon 45 years' observations. Nevertheless, as I am about to show, I cannot look on them as fully established.

I hope the reader has not forgotten the remarks I made, at the beginning of this chapter, on the vagueness of the term change of weather, on the arbitrary character which this vagueness must necessarily impress on the discussion of the observations, and on the possibility which it opens for a prejudiced mind to cant the balance (perhaps involuntarily) towards this or that opinion. This difficulty is not imaginary; I will, however, pass it by, while I point out still more weighty objections which will be readily suggested to those who examine the calculations of Toaldo in a critical spirit.

The Paduan philosopher did not content himself with attributing to the phases of the moon, those changes only which occurred on the very same day with those phases, but he also classed in that list the changes of the previous and of the succeeding days, and in certain special cases he extended the pretended lunar action even to two days before, and two days after the phase. No wonder then that the moon should appear endowed with so great an influence, or that the number of days' change should always be found to exceed the number of days of no change.

Let us, in order to shew more clearly the impropriety of this mode of discussion, suppose for a moment that the moon has no influence upon rain, and that we are seeking, from a long course of observations, the number of new moons with and without rain respectively. Suppose the result of our investigations to be that these two numbers are identical. Every one will perceive that, if instead of considering the day of

new moon, we had considered the day before or the day after that event, we should still have obtained the same result; the proportion of rainy days to days without rain would still have been 1 to 1.

Let us now substitute for the ordinary division of the year into periods of twenty-four hours each, a division into periods of three times twenty-four hours, and let us see what would then be the proportion between the number of such periods when there was rain and when there was no rain, at the times of new moon. The proportion would no longer be that of 1 to 1, but the first term would be greater than 1, because the chances of rain are greater in three days than in one.

Periods of four or five days would give still stronger results; inasmuch as it must on an average rain more often during four or five days than during one.

Well! I have now explained to you exactly what Toaldo did. For all days, not being characteristic of a particular phase in the lunation, he sought the number of times the weather changed, and the number of times it did not change, confining himself to the period of twenty-four hours. But the moment he came to a syzygy or a quadrature, he grouped the observations into periods of several days, on the pretext that the physical cause of change inherent in the moon could neither commence nor cease on a sudden.

From the table at page 499 it would appear that the influence of the moon at quadratures is by no mean so great as at syzygies; but if this supposed influence is altogether fallacious, and arises only from the faulty method adopted in discussing the observations, whence arises this diversity? This difficulty would indeed be embarassing were it not that I learn from a note in the "Journal de Physique" of those days, that Toaldo, when considering the passage of the moon through the syzygies or apsides, thought it necessary to combine with it the observations of the three preceding and the three succeeding days; whereas at the quadratures, he contented himself with introducing at most the one day before and the one day after, and thus the difficulty vanishes. It would be superfluous to enter upon a minute arithmetical discussion on this point; not only on account of the want of preciseness in the term change of weather, but also because at the time when the Paduan meteorologist undertook his great work, his opinions on lunar influence were already so fixed that he must needs have bent to them without perceiving it. No one will accuse me of misrepresenting Toaldo's ideas when they have read the following literal translation from page 56 of his Saggio Meteorologico: "Who does not know, from his own experience, how much more rapidly the nails and hair will grow when they are cut during the waxing than during the waning moon."

Pilgram instituted for Vienna the same investigations which Toaldo had already accomplished for Padua. He discussed 25 years' observations, commencing in 1763 and ending in 1787. I cannot, at present, put my hands on the original work, and therefore cannot say whether he avoided the error of Toaldo. But, supposing the principles on which his calculations are founded to be correct, and his results to be fully established, let us see how far they are corroborative of popular opinions.

In 100 observations of each phase at Vienna, the numbers of changes of weather were,

| | |
|---|---|
| At New Moon | 58 |
| Full Moon | 63 |
| The Quadratures | 63 |
| Perigee | 72 |
| Apogee | 64 |
| New Moon Perigee | 80 |
| New Moon Apogee | 64 |
| Full Moon Perigee | 81 |
| Full Moon Apogee | 68 |

What are we shewn by a mere glance at this table? This striking fact; that, of all the phases, the new moon is the *least* active in producing changes of weather! Both Toaldo's observations and popular opinion would teach the contrary.

If we were, in accordance with Pilgram's table, to tell all those sailors who believe the new moon to be, almost certainly, a cause of change; that in ten such events there would be six bearing out their opinion and four against it, they would laugh at the notion of so slender a concession: but how can we possibly grant more than this, when we have before us a table, the result of an arithmetical calculation, made by a man believing in lunar influence; and whose mistakes, if he made any, would certainly have been on the side of increasing the numbers in the column of changes?

Besides this, if it be true, as I think, I remember, that Pilgram, following Toaldo's example, did not register the changes on the day only of the new phase, but took account also of the changes on the day before and on the morrow, then the number 58 should be considerably reduced, and the new moon would actually appear to be an epoch characterised by settled weather. I do not exactly admit this result; but I must at least be allowed to conclude from the foregoing discussion that, in the interior of a country such as Austria, the new moon *either has no influence at all, or one directly the opposite of that which has hitherto been supposed.*

I must now endeavour to explain the large numbers 80 and 81, which appear opposite "new" and "full moon at perigee" respectively. These figures are very far from worthy of full credit, either because the number of observations was not sufficient to eliminate the effect of accidental circumstances, or from some other, but unknown cause. Here is my proof.

In any given phases, the greater the moon's distance the less is her effective influence. At new moon, the difference of effect between perigee and apogee is expressed by the difference of the numbers 80 and 64. At full moon, we find in corresponding circumstances 81 and 68. So that 68, being the number for full moon at apogee, represents the least action which the full moon can ever produce. Yet, in the second line of Pilgram's table, we find the mean of all the full moons during 25 years, a mean towards which an equal or nearly equal number of full moon apogees, and full moon perigees, must have contributed;

a mean therefore, corresponding to a distance very much smaller than that of apogee, is represented by the number 63 only, instead of by one much higher than 68!

The only other work worth mentioning respecting this question of the connexion between the changes of the moon, and the changes of weather, with which I am acquainted, is one by Dr. Horsley in the Philosophical Transactions for 1775 and 1776. Unfortunately it is founded upon two years' observations only, those of 1774 and 1775. It seems that the theory of lunar influences was by no means confirmed at London in 1774: for during the 12 or 13 lunations in that year, there were but two changes of weather coincident with new moon, and not one single change at any of the full moons. In 1775 there were four changes of weather at new, and three at full moon.

These last figures are certainly much smaller than we should expect on the authority of Toaldo's table, page 499 ; but we must not conceal that they are yet much larger than would fall to the share of the twelve days of conjunction and twelve days of opposition, if the whole number of changes which took place during the year, had been divided in proportion to the number of days.

We have no data on which to push this experimental enquiry farther. As far as we have yet gone, it appears to me that the following conclusions are sufficiently established.

Even if we admit the correctness of Toaldo's results, it will not be right to expect that "every change of phase, should be accompanied by a change of weather" ; for the table, page 499 shows that on an average we should be mistaken,

| | | | |
|---|---|---|---|
| Once in | 3 | times at the | quadratures, |
| „ | 4 | „ | apogee, |
| „ | 5 | „ | perigee and at full moon, |
| „ | 6 | „ | new moon. |

But I cannot too often repeat, that the Paduan astronomer's results must *not be adopted*, because the figures which he says express the probability of a coincidence of change of weather with change of moon, were obtained by extending the supposed influence of each phase to three days at the quadratures, and to four, five, or six days at new or full moon, perigee and apogee, respectively: and we may fairly presume, that an analogous operation performed for any given day of the lunation, of the week, or of the month, would lead us to precisely similar consequences.

In my examination of this subject, I have, as yet, borrowed all my arguments from the experimental data recorded by meteorologists. I believe, however, that the popular notion might be attacked *á priori* with great advantage. The reader will judge.

There are only three ways in which the moon can act upon the earth; by attraction, by her reflected light, or by obscure emanations of an electrical, a magnetic, or an unknown nature.

Lunar attraction raises the liquid mass of the ocean, twice in every

twenty-four hours. It is, therefore, presumable that it will also produce an analogous result upon the atmosphere. The difficulty of assigning from theory, the exact numerical value of this very small effect, should not prevent our acknowledging its existence, and even affirming that its magnitude will always be the same, for the same position of the moon and earth.

If this be granted, let us now suppose that, approximating to the results of Flaugergues, we were to find the effect of lunar action was to cause the barometer

To fall at the first quarter,
„ rise „ full moon,
„ fall „ last quarter,
and to remain stationary at new moon.

Thence, remembering that a rising barometer is generally a sign of fine weather, and a falling one of the contrary, we should expect that

At first quarter, the weather would become bad,
„ full moon, it would improve,
„ last quarter, it would get bad again,
and at new moon, there would be a change.

But this is not the sort of thing which Toaldo and his followers understand by lunar action. According to them, this action produces *change*; according to them, each change of phase makes rain succeed to fine weather, or fine weather to rain. Their notion cannot be made to harmonize with the barometric oscillations which would be caused by the moon's attraction. For I must repeat, those oscillations will always be of the same sign, that is to say in the same direction, for the same given position of moon, earth, and sun: suppose for example, there were always an augmentation of atmospheric pressure at full moon; then this augmentation which causes the barometer to rise, would nevertheless, if the weather happened then to be fine, bring on rain: which is evidently absurd. Therefore, even if changes of weather do accompany changes of the moon, *it is impossible that attraction can be the cause of the phenomenon.*

Since then the theory cannot be explained by attraction, we must recur to either luminous or obscure emanations from the moon. This opens an immense field for conjecture. I will only remark that we can draw no conclusion from any supposition of this nature, unless we at once admit the matter darted from the moon towards the earth, to have the property of obscuring a serene sky, and also of clearing off a cloudy one; for it is a *change* of weather that we have to account for. I would boldly affirm that such an hypothesis would be allowed by no one, were it not that, I remember the saying of Cicero "There is nothing so absurd but that philosophers will be found to sustain it."

## Examination of Masters of Merchant Ships.

A List of the Masters in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 30th April.

Those marked thus *m* served last as mates.

| Names. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Bushell, J. S.... | 3rd | 1814 | Unicorn, 375 tons .... .... | 32917 | London | May, 2nd |
| Fillmore, F. .... | 2nd | 1825 | Surge, 543 tons.....*m* | 27628 | — | — — |
| Roberts, J..... | 2nd | 1818 | China, 630 tons .. .. ....*m* | 34149 | — | — — |
| Sharp, T.. .. .. | 2nd | 1816 | Hand of Providence, 231 ts. | 490351 | S. Shields | — — |
| Crowley, J. .. .. | 2nd | 1818 | Huntcliffe, 238 tons .. ... | 8647 | — | — — |
| Henderson, D .. | 1st | 1817 | Mountstewart Elphinstone, | 386 tons | Glasgow | — — |
| Main, T..... | 1st | 1820 | Queen, 429 tons ..... | ..... | — | — — |
| Kenyon, D .. .. | 2nd | 1813 | Clipper, 84 tons .... ..... | 101407 | — | — — |
| Limstrong, C. R. | 2nd | 1821 | Robert, 310 tons .. .....*m* | 119284 | Newcastle | — 3rd |
| Miller, P.. .. .. | 2nd | 1828 | Lascar, 441 tons .. .....*m* | 251540 | Dundee | — — |
| Carter, J. W. .. | 1st | 1816 | Junior, 677 tons .... ..... | ..... | Liverpool | — 4th |
| Hague, B.. .. .. | 2nd | 1816 | Salem, 291 tons .... ..... | 259112 | — | — — |
| Mathews, A.. .. | 2nd | 1820 | Ranee, 646 tons .... .. ..*m* | 11656 | — | — — |
| Scott, J.. .. .... | 2nd | 1808 | Seine, 385 tons.....*m* | 217091 | London | — 6th |
| Preist, J..... | 2nd | 1813 | Minerva, 288 tons .. .. ..*m* | 27705 | — | — — |
| Williams, W.... | 2nd | 1814 | Recovery, 346 tons ..... | ..... | — | — — |
| Izod, W..... | 2nd | 1823 | Haddington, 1800 tons .. *m* | 755 | — | — — |
| Runciman, F. .. | 2nd | 1823 | John Moore. 700 tons....*m* | 328021 | — | — — |
| Pentreath, H. C. | 2nd | 1826 | Chamois, 195 tons ..... | 30292 | — | — — |
| Spencer, W..... | 1st | 1825 | Margaretta, 677 tons .... *m* | 127723 | Hull | — — |
| Pennal, T.. .... | 1st | 1809 | Thomas Edward, 184 tons. | ..... | Portsmouth | — 7th |
| Williams, J. S.. | 2nd | 1824 | Haidee, 743 tons .....*m* | 322282 | Plymouth | — — |
| Mackintosh, J... | 2nd | 1818 | Helen M'Gregor, 435 ts...*m* | 67399 | Hull | — — |
| Alexander, J. .. | 2nd | 1820 | Caroline Agnes, 570 tons .. | ..... | Glasgow | — 8th |
| Lilley, W..... | 2nd | 1809 | Barbraa Gordon, 338 tons.. | ..... | London | — 9th |
| Evans, S..... | 2nd | 1823 | John Bright, 591 tons....*m* | 161097 | — | — — |
| Hall, W.... .... | 2nd | 1806 | Emma Colvin, 600 tons.... | ..... | — | — — |
| Boyce, W..... | 3rd | 1810 | Royal Alice, 534 tons..... | 344534 | — | — — |
| Oakley H..... | 1st | 1812 | Spectator, 333 tons..... | . .... | Newcastle | — 10th |
| Spence, C. O.... | 1st | 1817 | Solway, 300 tons ..... | ..... | — | — — |
| Dale, T. J..... | 2nd | 1828 | Caroline, 425 tons .....*m* | 12259 | London | — 13th |
| Batty, P..... | 2nd | 1816 | Narcissus, 207 tons..... | ..... | — | — 16th |
| Butcher, A. .... | 2nd | 1806 | Caroline Agnes, 570 tons *m* | 436432 | — | — — |
| Polson, G.. .... | 3rd | 1807 | Reflector, 374 tons .....*m* | 198307 | — | — — |
| Goodwin, J. Y... | 3rd | 1815 | Sir H. Hardinge, 608 ts..*m* | 40822 | — | — — |
| Hynd, W... .... | 2nd | 1821 | Mary & Rose, 91 tons....*m* | 57480 | Dundee | — 17th |
| Jones, R. .. .... | 2nd | 1824 | Ellen Highfield, 127 tons, *m* | 108614 | Liverpool | — 18th |
| Hunter, R. M... | 1st | 1815 | Protector, 360 tons..... | ..... | London | — 20th |
| Browning, G.. . | 2nd | 1806 | Lady Amherst, 446 tons.... | ..... | — | — — |
| Smith, M. P .... | 2nd | 1825 | Narcissus, 207 tons.....*m* | 17008 | — | — — |
| Atkins, J. B.... | 2nd | 1825 | True Briton, 685 tons....*m* | 30993 | — | — — |
| Sprott, T... .... | 3rd | 1805 | Mars, 208 tons ..... | 99985 | S. Shields | — 21st |
| Thoms, G.. .. .. | 1st | 1814 | Jessie Thoms, 163 tons .. | ..... | Dundee | — — |
| Robinson, R.... | 2nd | 1819 | Duke of Cornwall, 580 ts *m* | 273316 | Liverpool | — 22nd |
| Rankin, W..... | 1st | 1816 | Lochlomond, 571 tons..... | ..... | Glasgow | — — |
| Watson, D..... | 1st | 1819 | Ontario, 479 tons..... | ..... | — | — — |
| Smith, N.. .... | 2nd | 1809 | Orissa, 322 tons .... ..... | ..... | — | — — |
| M'Kelvie, J..... | 2nd | 1815 | William Campbell, 108 tons | 43200 | — | — — |
| Kains, J..... | 2nd | 1809 | Malabar, 900 tons .....*m* | 477222 | London | — 23rd |
| Manning, F. B.. | 3rd | 1794 | Reflector, 374 tons ..... | ..... | — | — — |
| * Warman, E.B. | 3rd | 1815 | Rhine, 500 tons .... ....*m* | 1339 | — | — — |
| Austin, C..... | 2nd | 1826 | Nizam, 412 tons .... . ..*m* | 344488 | — | — — |
| Farlam, T..... | 2nd | 1824 | Coxon, 305 tons .... ....*m* | 334230 | Newcastle | — 24th |
| Stonehouse, R... | 3rd | 1822 | Amelia, 266 tons .....*m* | 12512 | Hull | — 27th |
| Brooke, S. C.... | 2nd | 1826 | Herefordshire, 1354 tons..*m* | 476433 | London | — 28th |
| Cook, N. .. .. .. | 2nd | 1809 | Suitan, 1100 tons. .. .. ..*m* | 76991 | — | — — |
| Ryrie, J..... | 1st | 1820 | Marian, 667 tons..... | ..... | Liverpool | — 29th |
| Irving, T. C .... | 1st | 1815 | Unicorn, 943 tons..... | 413505 | — | — — |
| Taitt, R..... | 1st | 1809 | Argaum, 446 tons .... .... | ..... | Glasgow | — 30th |
| Willlis, G ..... | 1st | 1799 | Childe Harold, 463 tons .. | ..... | London | June, 3rd |
| Brett, J.A..... | 2nd | 1814 | Unicorn, 375 tons .. .. .... | ..... | — | — — |
| * Wade, J. A .. | 2nd | 1824 | Jupiter, 700 tons .....*m* | 15000 | — | — — |

* Qualified for Steam Vessels only.

| Name. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Christian, E.... | 2nd | 1815 | Iberia, 600 tons .... .... *m* | 357298 | London | June 4th |
| Moore, W. H. .. | 2nd | 1815 | Felicity, 298 tons..... | 71899 | Liverpool | — — |
| Clough, W..... | 2nd | 1824 | Robert Ingham, 295 tons *m* | 184783 | S. Shields | — — |
| O'Neil, W ..... | 2nd | 1824 | Unicorn, 943 tons.....*m* | 38045 | Liverpool | — 5th |
| Meehan, F .. .. | 1st | 1807 | Pacha, 550 tons .... ..... | 75994 | London | — 6th |
| Woolcott, H. J. | 2nd | 1828 | Magnet, 272 tons .....*m* | 325060 | —— | — — |
| Guthrie, J..... | 1st | 1819 | Birman, 544 tons.. ..... | ..... | Glasgow | — 7th |
| Clendon, P. .... | 1st | 1817 | Rockcliffe, 323 tons..... | ..... | Newcastle | — — |
| Winchester, J... | 1st | 1820 | Victoria, 265 tons..... | 275999 | —— | — — |
| Searle, C. T.... | 1st | 1819 | Ariel, 124 tons..... | ..... | —— | — — |
| Keay, J.... .... | 1st | 1804 | Pacific, 361 tons ..... | ..... | —— | — — |
| Walmsley, J. J.. | 1st | 1817 | Woolsington, 297 tons .... | 188044 | —— | — 8th |
| Napier, D ..... | 2nd | 1821 | Commerce, 369 tons ..... | 78731 | —— | — — |
| Staness, G..... | 2nd | 1824 | Sprightly, 166 tons ..... | 113819 | —— | — — |
| Wilson, F. J.... | 2nd | 1826 | Branken Moor, 402 tons .. | 30533 | London | — 10th |
| Blackmore, E... | 2nd | 1824 | Eliza, 700 tons .....*m* | 28458 | —— | — — |
| Faldo, G.. .. .. | 2nd | 1822 | Emma Colvin, 560 tons..*m* | 9606 | —— | — — |
| Stamp, E.. .. .. | 3rd | 1818 | Ludlow, 287 tons.....*m* | 89929 | —— | — — |
| Kissock, G.. .. | 1st | 1807 | Glendaragh, 647 tons..... | ..... | Liverpool | — 11th |
| Cloustow, R.... | 2nd | 1821 | Bangalore, 511 tons .. .. *m* | 275140 | —— | — — |
| Brass, J. S..... | 1st | 1827 | Sumner, 695 tons .. .. .. *m* | 28043 | Gloster | — 12th |
| Martin, J. B .... | 2nd | 1818 | Maidstone, 938 tons .. .. *m* | 29385 | London | — 13th |
| Ransom, W.B .. | 2nd | 1827 | Benj Buck Greene 562 ts *m* | 18083 | —— | — — |
| Lamburd, J. P.. | 3rd | 1825 | Orestes, 684 tons .....*m* | 16327 | —— | — — |
| Freyer, J. K.... | 1st | 1814 | Admiral, 784 tons .... .... | ..... | Glasgow | — 12th |
| Meikle, J .. .... | 1st | 1803 | Ravenswood, 150 tons .. .. | ..... | —— | — — |
| Stewart, N. .. .. | 1st | 1815 | Rajasthan, 700 tons .. .. .. | ..... | —— | — — |
| Boyd, A. M'N.. | 2nd | 1826 | John Mitchell, 402 tons..*m* | 82344 | —— | — 13th |
| Clough, W..... | 1st | 1824 | Robert Ingham, 295 tons *m* | 184783 | S. Shields | — — |
| Johnson, J..... | 2nd | 1825 | Promise, 261 tons .. .... *m* | 78873 | —— | — — |
| Paige, R..... | 1st | 1827 | Grecia, 430 tons ..... | 29376 | Plymouth | — 14th |
| Brown, J.. .. .. | 2nd | 1826 | Esk, 263 tons .... ..... | 488219 | Newcastle | — 15th |
| * Crellie, P.. .. | 2nd | 1822 | Claudia, 398 tons .... .. *m* | 171876 | London | — 17th |
| Winstanley, E .. | 3rd | 1820 | Zenobia, 581 tons ..... *m* | 31364 | —— | — — |
| Saxon, G.. .. .. | 3rd | 1811 | Zenobia, 581 tons .... .... | ..... | —— | — — |
| Show, J.. . .... | 2nd | 1826 | Hindostan, 544 tons .. .. *m* | 477931 | —— | — — |
| Steward C..... | 1st | 1828 | Julius Cæsar, 113 tons .. *m* | 439623 | Yarmouth | — — |
| Bradshaw, G.J.. | 2nd | 1814 | Indus, 1400 tons ..... *m* | 251187 | London | — 20th |
| Taylor, W..... | 2nd | 1822 | Clarendon, 450 tons .. .... | 238445 | —— | — — |
| † Emmett, T. .. | 3rd | 1822 | Bucephalus, 985 tons ....*m* | 173344 | —— | — — |
| Holblack, H. jun | 1st | 1828 | Elizabeth & Susan, 114ts *m* | 445416 | Yarmouth | — — |
| Rogers, W. F... | 2nd | 1819 | Countess of Louden, 784 ts. | 159994 | Liverpool | — 21st |
| Ritchie, A..... | 1st | 1811 | Saint George, 226 tons .... | ..... | Glasgow | — 20th |
| Campbell, P.... | 2nd | 1821 | Hydaspes, 591 tons .....*m* | 187008 | Liverpool | — 22nd |
| ‡ Lee, G. B. .... | 2nd | 1826 | John Cooper, 659 tons .. *m* | 388801 | London | — 24th |
| Shand, J .. .. .. | 2nd | 1823 | Eliza Ann, 736 tons.....*m* | 101553 | Glasgow | — 25th |
| Byrne, J. S .. .. | 1st | 1819 | Ariel, 284 tons ..... | 266690 | —— | — 27th |
| Nicoll, A .. .... | 1st | 1803 | Andromeda, 345 tons ..... | ..... | Dundee | — 28th |
| Marshall, J. N.. | 1st | 1817 | Promise, 263 tons .... .... | ..... | Newcastle | — — |
| Briggs, R .. .... | 2nd | 1826 | Burrell, 402 tons.....*m* | 40748 | Liverpool | — 29th |

The Certificate granted to Richard Corney, on the 23rd April, by the Liverpool Board, has been withdrawn.

* The Register Ticket, Kirkcolm. † The Register Ticket, St. George's. ‡ The Register Ticket, George Lee.

---

THE MERCANTILE MARINE ACT.—*An Act for Improving the Condition of Masters, Mates, and Seamen, and Maintaining Discipline, in the Merchant Service.*—*14th August*, 1850.

*Preamble, &c.*

WHEREAS it is expedient to make provision for improving the condition of masters, mates, and seamen, and for maintaining discipline, in the British Merchant Service: Be it enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal,

and Commons, in this present parliament assembled, and by the authority of the same.

1. That this act may be cited as "The Mercantile Marine Act 1850."

2. And be it enacted, that in the construction of this act the following words and expressions shall have the meanings hereby assigned to them, if not inconsistent with the context or subject matter; (that is to say,)

Words of one number or gender shall import all numbers and genders:

The expression "her Majesty" shall include her Majesty, her heirs and successors:

The expression "her Majesty's dominions" shall include her Majesty's dominions strictly so called, and all territories under the government of the East India Company, and all other territories (if any) governed by virtue of any charter or license from the Crown or parliament of Great Britain:

The expression "United Kingdom" shall include Great Britain and Ireland:

The expression "Board of Trade" shall mean the committee of her Majesty's privy council, appointed for the consideration of matters relating to trade and foreign plantations:

The word "Consular Officer" shall include consul-general, consul, and vice-consul:

The word "ship" shall include every description of sea going vessel:

The expression "home trade ship" shall include every "ship" to which this act applies, employed in trading or going within the following limits; (that is to say) the coasts of the United kingdom, the Islands of Guernsey, Jersey, Sark, Alderney, and Man, and the continent of Europe, between the river Elbe and Brest inclusive:

The expression "foreign going ship" shall include every "ship" to which this act applies, employed in trading or going beyond the limits aforesaid:

The word "seaman" shall include every person (except masters and apprentices duly indentured and registered) employed or engaged to serve in any capacity on board any "ship:"

The expression "General Merchant Seamen's Act" shall mean an act passed in the session holden in the seventh and eighth years of the reign of her Majesty Queen Victoria, intituled "An Act to amend and consolidate the Laws relating to Merchant Seamen, and for keeping a Register of Seamen:"

The expression "Seamen's Protection Act" shall mean an act passed in the session holden in the eighth and ninth years of the reign of her Majesty Queen Victoria, intituled "An Act for the Protection of Seamen entering on board Merchant Ships."

3. And be it declared and enacted, that the words seaman and seamen in the said Seamen's Protection Act are meant to include any person or persons about to serve as seamen, notwithstanding that they have not previously been at sea, and are also meant to include apprentices in the sea service and persons about to become such apprentices; and that the said "Seamen's Protection Act" shall, after the thirty-first day of December one thousand eight hundred and fifty, be read and construed as if the expression "ship's husband" were replaced by the expression "a mate of the ship," and the expression "ship's husband" were replaced by the expression "mate of the ship."

4. And be it enacted, that the several parts of this act which relate to any ships, or to the owners, masters, mates, seamen, or apprentices of any ships, shall, so far as the context and subject matter admit, have the following applications; (that is to say,)

So much of this act as repeals, alters, or explains any existing enactment shall apply to the same ships and the same matters and persons to which such enactment applies:

The remainder of this act shall, so far as the context and subject admit, apply to all ships registered or licensed in the United Kingdom (expect such as are exclusively employed in fishing on the coasts of the United Kingdom, and such as belong to the corporation of the Trinity-house of Deptford Strond, the Commissioners of Northern Lighthouses, or the corporation for preserving and improving the harbour of Dublin, and also except pleasure yachts), and also to all ships registered or licensed in any other part of her Majesty's dominions, and employed in trading or going between any place in the United Kingdom, and any place or places not situate in the territory or colony in which such ship is registered, and to the owners, masters, mates, and crews of such ships respectively.

*Time of Operation, &c.*

5. And be it enacted, that the several parts of this act, shall come into operation at the several times following (that is to say) :—

So much of this act as relates to the appointment of new officers of the Board of Trade, and to the powers hereby given to that board, and to the constitution and powers of local marine boards, and to the register office for seamen, and to the establishment of shipping offices, and of examinations for masters and mates, shall come into operation immediately on the passing thereof.

So much of this act as relates to the compulsory production of certificates of masters and mates, agreements with seamen, advances and allotments of wages, health on board ship, desertion, discipline, log-books, payment of wages, and discharge of seamen, shall, with respect to such ships as are in the United Kingdom on the first day of January, one thousand eight hundred and fifty-one, and to the owners, masters, mates, and crews thereof, come into operation on that day ; and with respect to such ships as are not within the United Kingdom on that day, and to the owners, masters, mates, and crews thereof, as soon after the first subsequent arrival of such ship in the United Kingdom, as preparations are commenced for a further voyage or departure from any place therein :

And the remainder of this act shall come into operation on the first day of January one thousand eight hundred and fifty-one.

*Board of Trade and Local Boards.*

6. And be it enacted, that the Board of Trade, shall undertake the general superintendence of matters relating to the British Mercantile Marine, and shall be authorised to carry this act into execution, and to enforce by legal proceedings, or by such other lawful means as may seem to it expedient, the provisions of this act, and of all other acts and laws relating to the British Merchant Service, and may also open an account or accounts with the Bank of England, in the manner and for the purposes herein-after mentioned.

7. And be it enacted, that at such of the seaports of the United Kingdom as have in ships ordinarily employed as foreign-going ships a registered tonnage of thirty-thousand tons or upwards, and at such other places as the Board of Trade may appoint for this purpose, local marine boards shall be established for carrying into effect the provisions of this act, under the superintendence of the Board of Trade; and each of such local marine boards shall be constituted as follows; that is to say, the mayor or provost and the stipendiary magistrate, or such of the mayors or provosts and stipendiary magistrates of the place (if more than one), as the Board of Trade may appoint, shall be a member or members ex officio, the Board of Trade shall appoint four members from residents in the place or within seven miles thereof, and the owners of such foreign-going shipping as aforesaid registered at the port shall elect six members, to be qualified as herein-after mentioned; and such appointments and elections shall, in the first instance, take place on

the twenty-fifth day of October, one thousand eight hundred and fifty, and shall afterwards take place on the twenty-fifth day of October in every third succeeding year, except in the case of occasional vacancies by death, resignation, disqualification, or otherwise, which shall be filled up within one calendar month after they occur; and every person elected on an occasional vacancy shall continue a member until the next ordinary triennal election; and the mayor or provost shall fix the place and mode of conducting such elections, and also on occasional vacancies the day of election, and shall give at least ten days notice thereof; and the Board of Trade shall have power to decide any questions which may be raised concerning the conduct of such elections; provided, that no act of any local board shall be vitiated or prejudiced by reason of any irregularity in the election of any of its members, or of any error in the list of voters herein-after mentioned, or of any irregularity in the making or revising such list, or by reason of any person who is not duly qualified as herein-after provided acting upon such board: provided also, that if in any place, by reason of any election not taking place, or of the constant non-attendance of all or the greater part of the elective members, or from any other cause, any local marine board fails to meet or to discharge its duties, the Board of Trade may, if such failure occurs within three months before the next triennal election of such local marine board, undertake such duties provisionally until such election, or, if such failure occurs more than three months before such election, may direct a new election of the elective members of such local marine board to be had immediately.

8. And be it enacted, that every local marine board shall keep minutes of its proceedings in such mode as the Board of Trade may prescribe, and such minutes and all books or documents used or kept by any local marine board, or by any examiners, shipping masters, or other officers, under the control of any local marine board, shall be open to the inspection of the Board of Trade and its officers; but every local marine board may regulate the mode in which its meetings are to be held and its business conducted.

9. And be it enacted, that owners of foreign-going ships registered at any seaport in which there is to be a local marine board shall have votes at the election of members of such board, as follows, (that is to say), every registered owner of two hundred and fifty tons in the whole of such shipping shall, on the election of each member, have one vote for every two hundred and fifty tons owned by him, so that his votes for any one member do not exceed ten; and for the purpose of ascertaining such qualification the following rules shall be observed; (that is to say), in the case of a foreign-going ship registered in the name of one person, such person shall be deemed to be the owner; and in the case of a foreign-going ship registered in distinct and several shares in the names of more persons than one, the tonnage shall be apportioned among the owners as nearly as may be in proportion to their respective shares, and each of such persons shall be deemed the owner of the tonnage so apportioned to him; and in the case of a foreign-going ship, or shares of a foreign-going ship, registered jointly without severance of interest in the names of more persons than one, the tonnage shall, if it is sufficient, either alone or together with other tonnage (if any) owned by such joint owners, to give a qualification to each of them, be apportioned equally between the joint owners, and each of such joint owners shall be deemed the owner of the equal share so apportioned to him, but if the tonnage aforesaid is not so sufficient, the whole of such tonnage shall be deemed to be owned by such one of the joint owners resident at the port, or within seven miles thereof, as is first named on the register; and in making apportionment any portion may be struck off so as to obtain a divisable amount; and the whole amount of tonnage so owned by each person,

whether in ships or shares of or interest in ships, shall be added together, and if sufficient shall constitute his qualification; provided that no person appearing by the register to be a mortgagee or trustee for sale shall be entitled to vote, but the person who, subject to such mortgage or trust, is the registered owner, shall for the purpose of voting be considered the owner as if no such mortgage or trust existed.

10. And be it enacted, that the collector of her Majesty's customs in every seaport of the United Kingdom at which there is to be a local marine board shall, with the assistance of the registrar of seamen, on or before the twenty-fifth day of September in the present, and in every third succeeding year, make out or cause to be made out an alphabetical list of all persons who may be entitled by virtue of this act to vote in the election of a member or members to serve on the local marine board of such seaport; and in such list the christian name and surname and residence of every person shall be written in full length, together with the number of votes to which such person is entitled; and the said collector shall sign such list, and shall cause a sufficient number of copies of such list to be printed, and to be fixed on or near the doors of the custom house at such seaport for two entire weeks next after such list has been made: and the said collector shall likewise keep true copies of such list, to be perused by any person, without payment of any fee, at all reasonable hours during such two weeks.

11. And be it enacted, that two of her Majesty's justices of the peace, to be nominated triennially by the mayor or provost of every seaport, at which there is to be a local marine board, and which nomination the said mayor or provost is hereby required from time to time to make, shall, between the eighth and fifteenth days of October, both inclusive, in the present and in every third succeeding year, having first given three days' notice of such revision by advertising the same in one or more newspapers in such seaport, and by affixing such notice on or near to the doors of the custom-house of such seaport, revise at such custom-house, or in some convenient room or place near thereto, to be hired for the purpose by the said collector, the list so made out as aforesaid; and on every such revision any person whose name has been omitted from such list may claim to be inserted therein, and any person whose name has been inserted in such list may object to any other person as not being entitled to have his name inserted therein; and the said revisers may insert the name of any such person so claiming to be inserted in such list, on proof of his being entitled to have his name so inserted, and shall retain the name of any person so objected to, if the objection shall not have been established to their satisfaction, and shall retain in the said list the name of every person to whom no such objection shall have been made; and the decision of the said revisers with respect to every such list shall be final and conclusive, without appeal; and the said revisers shall immediately after such revision sign their names at the foot of the list so revised; and such list, so revised, shall be the register of voters in the election of members to the local marine board of such seaport for three years, from the twenty-fifth day of October then next ensuing, inclusive, to the twenty-fourth day of October inclusive, in the third succeeding year; and when and so soon as the said list is so signed the same shall be delivered to the mayor or provost of the said seaport, who shall cause a sufficient number of copies thereof to be printed, and delivered to any voter applying for the same.

12. And be it enacted, that the collector of her Majesty's customs of every such seaport shall, for the assistance of the said revisers in revising the said list, produce to them the books containing the register of ships registered at such seaport, and such revisers shall be allowed to inspect the same; and the registrar of seamen shall also produce or transmit to such revisers such

certified extracts or returns from the books in his custody as may be necessary for the same purpose.

13. And be it enacted, that all expenses incurred by the said collector at any such seaport, in making and printing the said list, and in the revision thereof, and all expenses of the mayor or provost in printing the same, shall be certified by the said justices, in writing under their hands, and shall be repaid to the said collector, mayor, and provost, by the Board of Trade; and the Board of Trade shall also repay to the said mayor or provost all expenses properly incurred by them in elections under this act.

14. And be it enacted, that every person whose name shall appear on such revised list, and no other person, shall be qualified to vote at the election of members of the local marine board at such seaport to be held on the twenty-fifth day of October next after the revision of such list, and at any occasional election held at any time between that day and the next ordinary triennial election of members of the said board.

*Qualification of Members of Local Boards.*

15. And be it enacted, that every male person who is, according to such revised list, entitled to a vote or votes, and shall reside in the seaport for which such list has been revised, or within seven miles thereof, shall be qualified to be elected a member of the local marine board of such seaport; provided always, that every such person elected to such board who after such election ceases to be an owner of such quantity of tonnage as would entitle him under this act to one vote as aforesaid, or to reside as aforesaid, shall no longer continue to act, or be considered as a member of such board, and thereupon another election of a qualified member shall take place and be had in the stead of such member of the said board, ceasing to be entitled or to reside as aforesaid.

16. And be it enacted, that any functions or powers relating to seamen or apprentices not employed in her Majesty's service, which are now vested in or exercised by the Lord High Admiral or the Commissioners for executing his office, may with his or their consent, be transferred to and exercised by the Board of Trade.

*New Officers, &c.*

17. And be it enacted, that the Board of Trade shall nominate two proper persons to assist such board in the execution of this act, and may from time to time remove and replace them, and appoint an annual salary not exceeding six hundred pounds to each of them, and may also, for the purposes aforesaid, from time to time appoint and remove such officers, clerks, and servants as it may deem necessary, and fix and alter the amount of salaries and wages to be paid to them.

18. And be it enacted, that the Board of Trade shall cause accounts of all moneys received or paid by it or by its agents, in pursuance of this act, during the preceding year, and of all moneys or investments applicable to any of the purposes of this act of which it may be possessed for the time being, to be laid before each house of parliament in the month of January in every year, if parliament is then sitting, or, if parliament is not then sitting, within one month after the next meeting thereof.

19. And be it enacted, that all documents purporting to be originals or copies of any minutes or orders of the Board of Trade on matters connected with the Merchant Service or of any scales of fees settled by it in pursuance of this act, and purporting to be sealed with the seal of the Board of Trade, shall be taken as evidence of such minutes, orders, and scales of fees respectively, without any further proof.

*Forms, &c.*

20. And be it enacted, that the Board of Trade shall sanction forms of the several documents which are required to be in any particular form by the "General Merchant Seaman's Act," or by so much thereof as is in force for the time being, and may vary such forms from those contained in the schedules thereto, not omitting any essential particulars.

21. And be it enacted, that the Board of Trade shall cause all such forms as are hereby required to be sanctioned by it to be prepared, and to be sealed with such seal as aforesaid, or to be marked with some other distinguishing mark, to be devised and employed for that purpose, and shall cause such forms to be issued and sold as hereinafter mentioned; and all books and documents hereby required to be made in forms so sanctioned shall, if made in forms purporting to be so sealed or marked, be taken to have been made in such forms, unless the contrary is proved; and no book or document hereby required to be in a form so sanctioned shall be admissable in evidence in any civil proceeding on the part of any owner or master of a vessel unless the same purports to be sealed or marked; provided, that the first set of forms to be so issued shall be circulated amongst the local marine boards and otherwise published for six weeks previous to the first day of January one thousand eight hundred and fifty-one, and after the first day of January one thousand eight hundred and fifty-one no new form shall be finally issued and brought into use, unless the same has, three months or upwards previously to such issue, been circulated amongst the local marine boards or otherwise published.

22. And be it enacted, that all instruments hereby required to be made in forms sanctioned by the Board of Trade shall, if made in such forms, be exempt from stamp duty.

23. And be it enacted, that every person who forges or procures to be forged or assists in forging such seal or other distinguishing mark as aforesaid, or who fraudulently alters or procures to be altered or assists in altering any form issued by the Board of Trade, with the view of evading any of the provisions of this act, or any condition contained in such form, for each offence shall either be deemed guilty of a misdemeanor, or shall be liable summarily to a penalty not exceeding fifty pounds, or to imprisonment not exceeding three months, with or without hard labour, as the justice or court hearing the case may think fit; and every person who in any case in which a form sanctioned by the Board of Trade is hereby required, without reasonable excuse, uses any form not purporting to so be sanctioned, or who sells, buys, or uses any document purporting to be a form so sanctioned, knowing the same not to be so sanctioned, or not to have been prepared and issued by the Board of Trade, shall for each offence be liable to a penalty not exceeding ten pounds.

*Conduct and Qualifications of Masters and Mates.*

24. And be it enacted, that examinations shall be instituted for persons who intend to become masters or mates of foreign-going ships, or who wish to procure certificates of competency herein-after mentioned; and the Board of Trade shall from time to time determine on a general plan for the conduct thereof; and the local marine boards of such ports as have in ships ordinarily employed as foreign-going ships a registered tonnage of thirty thousand tons or upwards, and such other local marine boards as the Board of Trade may appoint, shall provide for the examinations at their respective ports, and may appoint and from time to time remove and re appoint examiners to conduct the same, and may, subject to the general superintendence of the Board of Trade, regulate the same, and may, subject to the sanction of the Board of Trade, fix the remuneration of such examiners: provided,

that if it appears to the Board of Trade that the examinations for any two or more ports can be conducted without inconvenience by the same examiners, it may require and authorise the local marine boards of such ports to act together as one board in providing for and regulating examinations and appointing and removing examiners for such ports; and all examiners shall possess certificates of qualification to be from time to time granted by the Board of Trade, and shall adhere to the general plan of examination instituted by it; and the Board of Trade may at any time depute any of its officers to be present and assist at any examination, and any members of the local marine board of the place where the examination is held may also be present and assist at any such examination.

25. And be it enacted, that all applicants for examination shall pay such fees, not exceeding the sums specified in schedule A, as the Board of Trade may direct, to such persons as it may appoint for that purpose.

26. And be it enacted, that the Board of Trade shall deliver to every applicant who is reported by the local examiners to have passed the examination satisfactorily, and to have given satisfactory evidence of his sobriety, experience, ability, and general good conduct on shipboard, a certificate to the effect that he is competent to act as master or mate, herein after called a certificate of competency.

27. And be it enacted, that persons who have before the first day of January one thousand eight hundred and fifty-one served as masters or mates in the British Merchant Service, or who have attained or hereafter may attain the rank of lieutenant, master, passed mate, or second master, or any higher rank, in the naval service of her Majesty or of the East India Company, shall be entitled, without payment of any fee, to certificates as masters or mates (as the case may be), differing in form from certificates of competency, and herein after called certificates of service; and each of such certificates shall contain particulars of the name, place, and time of birth, and of the length and nature of the previous service of the person to whom the same is delivered; and the Board of Trade shall deliver to any person who proves himself to have served as master in such manner and before such time as aforesaid, or to have attained such rank as aforesaid, and who also gives a full and satisfactory account of the particulars aforesaid, a certificate of service, either as master or mate, as he may desire, and shall deliver to any person who proves himself to have served as mate in such manner and before such time as aforesaid, and who also gives a full and satisfactory account of the particulars aforesaid, a certificate of service as mate; and the Board of Trade may also, in cases in which it thinks fit so to do, give certificates of competency in lieu of certificates of service to any deserving persons who have attained such rank as above mentioned, or who before this act comes into operation have obtained certificates from the Board of Trade, without requiring them to be examined.

28. And be it enacted, that if any master or mate is convicted of a misdemeanor under this act, or is superseded by the order of a naval court constituted as herein-after mentioned, the Board of Trade may thereupon cancel or suspend his certificate, whether of competency or service; and if the Board of Trade or any local marine board has reason to believe that any master or mate is from incompetency or misconduct unfit to discharge his duties, such board may either institute an investigation, or, if expedient, the Board of Trade may direct the local marine board at or nearest to the place at which it may be convenient for the parties and witnesses to attend to institute the same; and thereupon such persons as the Board of Trade may appoint for the purpose, or (as the case may be) the local marine

board, shall, with the assistance of a local stipendiary magistrate (if any) and if there be no such magistrate, of a competent legal assistant to be appointed by the Board of Trade, conduct the investigation, and may summon the master or mate to appear, and shall give him full opportunity of making a defence, either in person or otherwise, and may exercise any of the powers of procuring evidence herein after given to special inspectors appointed by the Board of Trade, and shall on the conclusion of the investigation make a report upon the case to the Board of Trade; and if such report is to the effect that such master or mate is, either from incompetency, or from habitual drunkenness, or from tyrannical habits unfit to discharge his duties, the Board of Trade may cancel or suspend his certificate, whether of competency or service; and every master or mate whose certificate is cancelled or suspended shall thereupon deliver it to the Board of Trade, or as it may direct; and such board may at any subsequent time grant a fresh certificate to any person whose certificate has been cancelled, and it may pay the expense of any such investigation as aforesaid, and may pay to such magistrate or legal assistant as aforesaid such remuneration as it may deem fit: provided always that no person interested in any ship shall take part in any investigation relating thereto or to the conduct or competency of any master or mate thereof.

29. And be it enacted, that all certificates, whether of competency or service, shall be made in duplicate, and one part shall be delivered to the person entitled to the certificate, and the other shall be kept and recorded by the registrar of seamen or by such other person as the Board of Trade may direct so to do; and the board shall give to the registrar or such other person immediate notice of all orders made by it for cancelling, suspending, altering, or otherwise affecting any certificate; and the registrar or such other person as aforesaid, shall thereupon make a corresponding entry in the record of certificates; and a copy purporting to be certified by the registrar or his assistant, or by such person as aforesaid, of any certificate shall be primâ facie evidence of such certificate, and a copy purporting to be so certified as aforesaid of any entry made as aforesaid in respect of any certificate shall be primâ facie evidence of the truth of the matters stated in such entry; and in case any master or mate proves to the satisfaction of the Board of Trade that he has innocently lost or been deprived of any certificate already granted to him, the board shall, upon payment of such fee (if any) as it may direct, cause a copy of the certificate to which by the record so kept as aforesaid, he appears to be entitled to be made out and certified as aforesaid, and to be delivered to him, and any copy which purports to be so made and certified as aforesaid shall have all the effect of the original.

30. And be it enacted, that no foreign-going ship shall go to sea unless the master and the first and second mates or the only mate (as the case may be), if engaged to serve in those capacities at the commencement of the voyage, have obtained and possess valid certificates either of competency or service appropriate to their several stations; and no officer of customs shall clear outwards any such ship, or permit any such ship to proceed to sea, unless such appropriate certificates are produced to him; and the tide-waiters left on board shall be maintained at the expense of the master or owner until such certificates are produced, and clearance may be delayed till such expense is satisfied.

31. And be it enacted, that every person who makes or procures to be made or assists in making any false representation for the purpose of obtaining for himself or for any other a certificate either of competency or service, or who fraudulently forges or alters, or procures to be forged or altered, or

assists in forging or altering any such certificate or any official copy of any such certificate, or who fraudulently makes use of any such certificate or any copy of any such certificate which is forged, altered, cancelled, suspended, or to which he is not justly entitled, for each offence shall either be deemed guilty of a misdemeanour, or shall be liable summarily to a penalty not exceeding fifty pounds, or to imprisonment not exceeding three months, with or without hard labour, as the justice or court hearing the case may think fit; and every person who neglects or refuses to give up a cancelled or suspended certificate when required by the Board of Trade so to do, or who, having been engaged to serve as master, or as first or second or only mate of any foreign-going ship, goes to sea as such master or mate without being at the time entitled to and possessed of a valid and appropriate certificate, or who employs any person as master or mate of any ship as aforesaid, knowing him not to be entitled at the time to a valid and appropriate certificate, shall for each such offence be liable to a penalty not exceeding fifty pounds.

*Registration.*

32. And be it enacted, that all powers of controlling and regulating the General Register and Record Office for Seamen which are given to the Lord High Admiral or the Commissioners for executing the office of Lord High Admiral by the said "General Merchant Seamen's Act" and by an act passed in the session of the fifth and sixth years of the reign of King William the Fourth, intituled "An Act to Amend and Consolidate the Laws relating to the Merchant Seamen of the United Kingdom, and for forming and maintaining a Register of all the men engaged in that Service," shall, from the time when this act comes into operation, be vested in the Board of Trade: and such board may, with the concurrence of the said Lord High Admiral or Commissioners, dispense with the observance of all or any of those parts of the "General Merchant Seamen's Act" which relate to register tickets of seamen; and such board may direct the performance by the registrar of seamen of any other duties than those now imposed on him, or may unite his office and duties with any other office and duties relating to the merchant service, or may abolish his office, and direct any duties thereof which the board may think it desirable to continue to be performed by such persons, being servants or agents of the board, and in such manner as the board may think fit; and the Commissioners of her Majesty's Treasury may make any alterations in the payment of the salaries and allowances of the registrar, his assistants and clerks, and may regulate the salaries or allowances to be paid to them or to any other persons for performing any of his or their continuing duties.

*Registry of Seamen, &c.*

33. And be it enacted, that the registrar of seamen or such other person as the Board of Trade may direct so to do shall, so far as by means of the documents transmitted to him he is able so to do, keep a record of such particulars relating to persons in the Merchant Service as are now recorded by him, or such other record of matters relating to such persons as the board may direct.

34. And be it enacted, that all shipping masters and officers of customs shall take charge of all documents which are delivered or transmitted to or retained by them in pursuance of this act, and shall keep them for such time (if any) as may be necessary for the purpose of settling any business arising at the place, or for any other proper purpose, and shall, if required, produce them for any of such purposes, and shall then transmit them, excepting log-

books, to the registrar of seamen, or to such other person as the Board of Trade may direct, to be by him recorded and preserved; and the registrar, or such other person as the board may intrust with the custody of any such document, shall, on payment of a moderate fee to be fixed by the board, or without the payment of any fee if the board so direct, allow any person to inspect the same; and, in cases in which the production of the original in any court of justice or elsewhere is essential, produce the same, and in other cases make and deliver to any person requiring it a certified copy thereof or any part thereof; and every copy purporting to be so made and certified shall be received in evidence, and shall have all the effect of the original of which it purports to be a copy.

*Shipping Offices.*

35. And be it enacted, that in every seaport in the United Kingdom in which there is a local marine board, such board shall establish a shipping office or shipping offices, and may procure the requisite premises, and appoint, and from time to time remove and re-appoint, superintendants of such offices, to be called shipping masters, with any necessary deputies, clerks, and servants, and fix, and from time to time alter, their salaries and wages, and regulate the mode of conducting business at such offices, and have complete control over the same, subject to the approval and immediate direction of the Board of Trade, so far as regards the number of persons appointed, the amount of salaries and wages, and the receipt and payment of money; and, subject as aforesaid, every shipping master shall obey the directions of the local marine board by which he is appointed; and all shipping masters, deputies, clerks, and servants shall, before entering upon their duties, give such security (if any) for the due performance thereof as the Board of Trade may require; and every act done by or before any deputy duly appointed shall have the same effect as if done by or before the shipping master: provided, that if in any case any two members of any local marine board complain to the Board of Trade that any shipping master, deputy, clerk, or servant appointed by such local marine board does not properly discharge his duties, the Board of Trade may investigate the case, and may, if the complaint is substantiated, remove him from his office, and may provide for the proper performance of his duties until another person is properly appointed in his place.

36. And be it enacted, that it shall be the general business of shipping masters appointed as aforesaid to afford facilities for engaging seamen by keeping registries of their names and characters, to superintend and facilitate their engagement, and discharge in manner herein-after mentioned, to provide means for securing the presence on board at the proper times of men who are so engaged, and to perform such other duties in respect of seamen as are hereby or may hereafter be committed to them.

37. And be it enacted, that the Board of Trade may, with the consent of her Majesty's Commissioners of Customs, cause any duties relating to seamen or apprentices which are now performed by officers of customs to be transferred to and performed by shipping masters appointed under this act.

38. And be it enacted, that fees shall be payable upon engagements and discharges which, in pursuance of this act, are to be effected before shipping masters as herein-after mentioned, so nevertheless that such fees shall not exceed the sum specified in schedule B; and, subject to such restriction, the Board of Trade shall fix and may alter the amount of such fees, and shall cause scales thereof to be prepared and to be conspicuously placed in the shipping office; and all shipping masters, their deputies, clerks, and

servants may refuse to proceed with any engagement or discharge unless the fees payable thereon are first paid.

39. And be it further enacted, that every owner or master of a ship engaging or discharging any crew or seamen in a shipping office, or before a shipping master shall pay to the shipping master the whole of the fees, hereby made payable in respect of such engagement or discharge, and may, notwithstanding anything in the "Seaman's Protection Act" contained, for the purpose of in part reimbursing himself, deduct in respect of each such engagement or discharge, from the wages of all persons (except apprentices), so engaged or discharged, and retain any sums not exceeding the sums specified in that behalf in schedule C.

40. And be it enacted, that any shipping master, deputy shipping master, clerk, or servant, who demands or receives any remuneration whatever, either directly or indirectly, for hiring, supplying, or providing any seaman for any merchant ship, excepting the lawful fees payable under this act, shall for every such offence be liable to a penalty not exceeding twenty pounds.

41. And be it enacted, that the Board of Trade shall cause printed forms of all agreements, advance notes, allotment notes, receipts, discharges, official log-books, and other documents which in pnrsuance of this act are issued or sanctioned by the board for the use of persons engaged in or connected with the merchant service, to be supplied or sold at all shipping offices, at such times, to such persons, at such moderate prices (if any), and in such manner as the board may direct, or by such other persons as it may license so to do.

42. And be it enacted, that the Board of Trade may, with the consent of the Commissioners of her Majesty's Customs, direct that at any place in which no separate shipping office is established, the whole or any part of the business of the shipping office shall be conducted at the custom-house, and thereupon the same shall be there conducted accordingly; and in respect of such business such custom-house shall for all purposes be deemed to be a shipping office, and the officer of the customs there to whom such business is committed shall for all purposes be deemed to be a shipping master, within the meaning of this act.

43. And whereas it is expedient to encourage sailors' homes in the seaports of the United Kingdom: Be it enacted, that if the Board of Trade or any local marine board appoints any superintendent or any person connected with any such home to be a shipping master, or constitutes any office in any such home a shipping office for all or any of the purposes of this act the Board of Trade may authorize the whole or any portion of the fees paid at any such office to be appropriated to the use of such home: provided, also, that in the port of London the Board of Trade may appoint any superintendent of any sailors' home, or any other person connected therewith, to be a shipping master, with such deputies, clerks, and servants, as may be necessary, and may appoint any office in any such home to be a shipping office, and may from time to time revoke and alter such appointments; and all shipping masters, deputies, clerks, and servants, so appointed, and all shipping offices so constituted in the port of London, shall be subject to the immediate control of the Board of Trade, and not to the local marine board of the port.

44. And be it enacted, that the Board of Trade may from time to time in any case or class of cases dispense with the transaction before a shipping master or in a shipping office of any matters required by this act to be so transacted; and thereupon such matters shall, if duly transacted as otherwise required by law, be as valid as if transacted before a shipping master or in a shipping office.

*Engagement of Seamen and commencement of Employment.*

45. And be it enacted, that so much of the "General Merchant Seamen's Act" as relates to agreements with seamen shall be repealed from the time when so much of this act as relates to the same particulars comes into operation, except as to agreements entered into and liabilities and penalties incurred before that time; and that such of the provisions of the same act as relate to the delivery and production of the agreements thereby required to any consular or naval officer or officers of customs abroad, and to endorsements to be made thereon by any such officer, shall apply to the agreements hereby required.

46. And be it enacted, that every master of a ship shall, on carrying any seaman to sea as one of his crew, enter into an agreement with him in the manner herein-after mentioned; and every such agreement shall be in a form to be sanctioned and issued by the Board of Trade, and shall be dated at the time of the first signature thereof, and shall be signed by the master before any seaman signs the same, and shall contain the following particulars as terms thereof;

1. The nature, and, as far as practicable, the length of the voyage or engagement on which the ship is to be employed:
2. The time at which each seaman is to be on board or to begin work:
3. The capacity in which each seaman is to serve:
4. The amount of wages which each seaman is to receive:
5. A scale of the provisions which are to be furnished to each seaman:
6. Any regulations as to conduct on board, and as to fines, short allowance of provisions, or other lawful punishments for misconduct, which have been sanctioned by the Board of Trade as regulations proper to be adopted, and which the parties agree to adopt:

And shall be so framed as to admit of stipulations, to be adopted at the will of the master or seaman in each case, as to advance and allotment of wages; and may contain any other stipulations which are not contrary to law.

47. And be it enacted, that with respect to foreign-going ships, every agreement (except in the special cases of agreements made out of the United Kingdom and of agreements with substitutes herein-after mentioned) shall be signed by each seaman in the presence of a shipping master; and such shipping master shall cause the agreement to be read over and explained to each seaman, or otherwise ascertain that each seaman understands the same before he signs it, and shall attest each signature; and when the crew is first engaged the agreement shall be signed in duplicate; and one part shall be retained by the shipping master, and the other part shall contain a special place or form for the descriptions and signatures of substitutes or persons engaged subsequently to the first departure of the ship, and shall be delivered to the master; and in the special cases of seamen engaged out of the United Kingdom, and of substitutes engaged in the place of seamen who have duly signed the agreement, and whose services are lost within twenty-four hours of the ship's putting to sea, by death, desertion, or other unforeseen cause, the engagement may, when practicable be made before some official shipping master duly appointed either in the United Kingdom or in her Majesty's dominions abroad for the purpose of shipping seamen, and in the manner herein-before specified for ordinary cases happening in the United Kingdom; and in such special cases, whenever the engagement is not so made, the master shall, before the ship puts to sea, if practicable, and if not, as soon afterwards as possible, cause the agreement to be read over

and explained to the seamen, either before some consular officer, or before some officer of customs, or on board the ship; and the seaman shall thereupon sign the same in the presence of such officer, or of some other witness who shall attest his signature: provided, that nothing herein contained shall dispense with the sanction for shipping seamen at foreign ports required by the "General Merchant Seamen's Act."

48. And be it enacted, that with respect to home trade ships, crews or single seamen may, if the master thinks fit, be engaged or discharged before a shipping master in the manner herein-before directed with respect to foreign-going ships; and in every case in which the engagement is not so made the master shall, before the ship puts to sea, if practicable, and if not, as soon afterwards as possible, cause the agreement to be read over and explained to each seaman, and the seaman shall thereupon sign the same in the presence of a witness, who shall attest his signature.

49. And be it enacted, that every erasure, interlineation, or alteration in any such agreement as aforesaid (except additions so made as herein-before directed for shipping substitutes or persons engaged subsequently to the first departure of the ship) shall be wholly inoperative, unless proved to have been made with the consent of all the persons interested by the written attestation (if made in her Majesty's dominions) of some shipping master, justice, officer of the customs, or other public functionary, or (if made out of her Majesty's dominions) of a consular officer, or, where there is no consular officer, of two respectable British merchants.

50. And be it enacted, that in the case of foreign-going ships the master shall, before quitting the first port of departure, produce and show to the collector or comptroller of customs the agreement so signed and attested as aforesaid, and no officer of customs shall clear any such ship outwards or permit any such ship to proceed to sea without such production; and the master shall also, within forty-eight hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver such agreement to the shipping master, or, if there is no shipping master, to the collector or comptroller of customs; and the shipping master or officer of customs shall thereupon give to the master a certificate of such delivery; and no officer of customs shall clear inwards any foreign-going ship without the production of such certificate; and in every case in which any such ship is delayed for want of the production of any agreement or certificate of the delivery thereof the tide-waiters left on board shall be maintained at the expense of the master or owner until the same is produced, and clearance may be delayed till such expense is satisfied.

51. And be it enacted, that in the case of home trade ships no agreement shall extend beyond the next following thirtieth day of June or thirty-first day of December, or the first arrival of the ship at her final port of destination in the United Kingdom after such date; and the owner or master of every such ship shall, within twenty one days after the thirtieth day of June and the thirty-first day of December in every year, transmit or deliver to some shipping master or officer of customs in the United Kingdom every agreement made within the six calendar months next preceding such days respectively; and the shipping master or officer of customs shall thereupon give to the master or owner, a certificate of such transmission or delivery; and no officer of customs shall give to the master or owner of any such ship as aforesaid a transire or any other customs document necessary for the conduct thereof without the production of such certificate.

52. And be it enacted, that any seaman may bring forward evidence to prove the contents of any agreement, or otherwise support his case without producing or giving notice to produce the agreement or any copy thereof.

53. And be it enacted, that no seaman shall by reason of any agreement forfeit his lien upon the ship, or be deprived of any remedy for the recovery of his wages to which he would otherwise have been entitled; and every stipulation which is inconsistent with any provision of this act or of any other act relating to merchant seamen, and every stipulation by which any seaman consents to abandon his right to wages in the case of the loss of the ship, or to abandon any right which he may have or obtain in the nature of salvage, shall be wholly inoperative.

54. And be it enacted, that the master shall at the commencement of every voyage or engagement cause a legible copy of the agreement (omitting the signature) to be placed on board in such a manner as to be accessible to the crew.

55. And be it enacted, that if in any case any seaman is carried to sea without entering into an agreement in the form and manner and at the place and time hereby in such case required, or if any agreement or such copy thereof as aforesaid is not delivered or transmitted to a shipping master or officer of customs at the time and in the manner hereby directed, the master in the case of a foreign going ship, and the master or owner in the case of a home trade ship, shall for each of such offences be liable to a penalty not exceeding five pounds; and if a copy of the agreement is not placed on board in the manner herein-before directed, the master shall for such offence be liable to a penalty not exceeding five pounds; and every person who fraudulently alters or procures to be altered, or assists in altering, or makes or procures to be made or assists in making, any false entry in, or delivers or procures to be delivered or assists in delivering a false copy of, any agreement, for each such offence shall either be deemed guilty of a misdemeanor, or shall be liable summarily to a penalty not exceeding fifty pounds, or to imprisonment not exceeding three months, with or without hard labour, as the justice or court hearing the case may think fit.

*(To be concluded in our next.)*

---

## Nautical Notices.

Trinity House Notices, *Entrance of the Humber.*—A notice dated 8th August, of the Trinity House, at Hull, states that the Outer Bank Buoy, has been removed and is now lying with the *New Sand Light Ship bearing*, S.$\frac{1}{4}$W.; *the Spurn High Light* W.b.N.$\frac{1}{2}$N.; *the Middle Bank Buoy* W.$\frac{1}{2}$S., *Kilnsea Beacon* N.b.W.$\frac{1}{2}$W.

---

*Floating Light at the Gunfleet.*—A notice of the London Trinity House, dated July 24th, states a floating light has been moored in nine fathoms, with Dovercourt Church N.$\frac{1}{2}$E; Walton Mill N.b.W.; Clackton Mill N. W.$\frac{1}{2}$W.; N.E. Gunfleet Buoy, N.E.b.E.; Gunfleet Spit Buoy, N.b.W$\frac{1}{2}$W.; Gunfleet Beacon W.N.W.; Sunk Light East, distant 3·8 miles.

---

San Francisco California.—A reef of rocks lies off the southern and western point of the Sand Bluff, which juts off nearly at right angles from the main land about fourteen miles to the northward and westward of the entrance of the bay of San Francisco, and twelve miles to the eastward of Point de Rais. The rocks composing this reef are generally of pinnacle form

and scattering, and although their points are within six or eight feet of the surface, it does not shew any of the breakers at full sea more than half a mile from the shore. The schooner *Laura Virginia* struck at about two miles from the beach and received severe injury; and the ship *Sea* also touched on it, but passed over without damage. The soundings are bold on both sides of the outer part of the reef, and vessels should be cautious in approaching this part of the coast, as the neck of the land does not indicate the existence of such danger.—*Shipping Gazette, 24th August.*

---

*Bay of Fundy.*—Capt. Samuel Laybold, of the packet brig *Bello*, informs us, that he has never in any previous season observed the current setting in to the Bay of Fundy with greater rapidity than during the present. Our informant is excellent authority. By keeping three-quarters of a point south of the ordinary course, when running from Cape Ann, and standing four or five hours longer to the eastward than is customary, he managed to get clear of all, without much room to spare. Under ordinary circumstances, a due east course has often carried him clear of every thing.

---

Light on Cape Antonio.—Information has been received at the Admiralty, that the new light for some time past preparing on Cape Antonio, the west end of the island of Cuba, is now exhibited, and can be seen from the decks of ships, at the distance of about twenty miles.

---

*Trinity House, London, July 31st, 1850.*

Heligoland.—This Corporation has caused a Mast Buoy, painted black, with a small triangle head, and floating 8 feet above water, to be placed in 4½ fathoms at low water, 70 feet to the westward of the Stein Rock, off the south point of the Island of Heligoland, with the following marks and compass bearings, viz.:—

The two triangular headed beacons on Sandy Island, in line N.E.b.N.
The beacon on Heligoland, in line with the east side of the Old Tower. - - - - - - - - - N.b.W.

J. Herbert, *Secretary.*

---

*Trinity House, London, 31st July, 1850.*

Goodwin Sands.—The greatly increased depth of water at the Safety Beacon near the entrance of the Swatchway on the eastern side of the Goodwin Sands, having rendered that beacon no longer useful,

Notice is hereby given,—That the same has been taken away, and that a Nun Buoy of large size, painted black, marked "Swatchway," and surmounted by a staff, having a diamond top, has been placed on the south side of the projection of the Sand near to where the said Safety Beacon stood.

This buoy lies in 15 fathoms water, and with the following marks and bearings, viz.:—

| | |
|---|---|
| Upper Deal Church, just open to the right of Deal Castle | W.b.N. |
| St. Lawrence Mill, in line with the Obelisk on Ramsgate Pier | N.N.W. ¼ W. |
| The New Beacon on the Goodwin Sand (not yet) completed . . . . . | W.N.W. |
| South Calliper Buoy . . . . . | S.W. ¾ W. |
| Gull Light Vessel . . . . . | N.W. |
| N.E. Goodwin Buoy . . . . . | N.b.E. ¾ E. |
| Goodwin Light Vessel . . . . . | N.N.E. ¼ E. |
| North Foreland Lighthouse . . . . . | N.b.W. |

Mariners are to observe that the line of the eastern side of the Goodwin Sand is now marked by Four Nun Buoys of large size, the descriptions and positions of three of which have been previously made known, but are now re-published in connection with that newly placed as above stated; that is to say—

*First.*—Off the N.E. part of the Sands, a large Nun Buoy, coloured Red, and bearing a staff with a triangular top, in 11 fathoms, with

St. Lawrence Church, on with the Royal Hotel at Ramsgate N.W.
Upper Deal Mill, on with the South Side of the Naval Hospital . . . . . W. ½ S.
South Foreland High Lighthouse, its Length on with the Cliff Northward of St. Margaret's Bay . . S.W.b.W. ¾ W.
North Foreland Lighthouse . . . . . N.b.W. ¾ W.
Gull Light Vessel . . . . . W.b.N.
North Sand Head or Goodwin Light Vessel . . . N.N.E. ½ E.

*Second.*—Off the Swatchway, the Black Buoy, recently placed and herein-before described.

*Third.*—Off the Northern Part of the South Calliper, a large Nun Buoy, surmounted by a staff and a cage, and painted Black and White, in horizontal stripes, in 13 fathoms, with

Waldershare Monument, in line with the Centre of the low Cliff North of Kingsdown . . . . . W.b.N. ¼ N.
Thanet Mill, midway between Ramsgate Church and the Obelisk on the Pier . . . . . N.b.W. ¼ W.
S.E. Goodwin Buoy . . . . . S.W. ¾ W.
South Sand Head Light Vessel . . . . . W.b.S.
Goodwin Light Vessel . . . . . N.E b.N.

*Fourth.*—Off the Southern Part or Spit of the South Calliper, a large Black Nun Buoy, bearing a staff and globe, in 8½ fathoms, with

St. Lawrence Church, its breadth open West of Ramsgate Mill . . . . . N. ¼ W.
Shakspeare's Cliff, just open of the South Foreland . . W. ½ S.
South Sand Head Light Vessel . . . . . W. ¾ S.
South Calliper Buoy . . . . . N.E.b.E. ½ E.

The foregoing Bearings are Magnetic, and the depths those of Low Water Spring Tides.

*Note.*—Masters of Vessels, Pilots, and others, are cautioned to give the abovementioned Buoys a berth of not less than one half mile in passing them, on account of the tide, which sets with great strength to the north-westward towards and over the Sand.

J. Herbert, *Sec.*

---

*Trinity House, London, July 24th, 1850.*

Floating Light at the Gunfleet Sand.—Notice is hereby given that, in compliance with the request of numerous owners and masters of vessels, and other persons interested in the navigation of the East Swin, this corporation has caused a floating light vessel, to be moored off the Gunfleet Sand on the northern side of the channel called the East Swin. This vessel is placed in 9 fathoms at low water spring tides, with the following marks and compass bearings: viz., Dover Court church, just open at the low point of the Naze Land; N. ½ E.; Walton Mill, just open to the right of the pier head N.b.W.; Clackton Mill, just open to the northward of a clump of trees, N.W.½W.; N.E. Gunfleet Buoy, well open to the right of the Middle Gun-

fleet Buoy, N.E.b.E.; Gunfleet Spit Buoy, N.b.W. ½ W.; Gunfleet Beacon, W.N.W.; Sunk Light Vessel, E., distant three $\frac{5}{10}$ miles. Mariners are to observe that on board this vessel two bright lights, both of which revolve, will be exhibited; that of the foremast will burn at an elevation of 38 feet, and that at the mizen mast at an elevation of 20 feet above the level of the sea. These lights will be first exhibited on the evening of Thursday, the 1st of August next, and thenceforth continued every night from sunset to sunrise.

J. Herbert, *Secretary*.

---

Spurn Point.—We alluded in our last to the serious fact of a breach, by the sea, having taken place across the Spurn Point, threatening great danger to the navigation of the Humber, and to the safety of the lighthouses.

The breach is situated about half a mile to the north of the lighthouse, and is about 1000 feet wide and 12 feet deep in mid channel at time of high water, and through which small vessels now pass. The breach commenced in the beginning of the year and has been increasing ever since, so that the extreme point where the lighthouses are situated is now an island for six hours out of the twelve, and the danger is that the Humber will shortly have two mouths instead of one; and it is but obvious that, the stream of flood and ebb being split into two portions, the old channel is likely to deteriorate, without any prospect of the new one becoming useful, while the shelter to Hawke Roads must be much reduced.

From the constant and yet unrestricted practice of removing cobble and gravel stones, under the sanction, and for the benefit of the lord of the manor, and from the enormous quantity removed annually (computed at 40,000 tons), and applied to the repair of the Lincolnshire roads, it has long been predicted that this operation, by weakening the shore, would be the means of a breach occurring, and the fatuity by which this practice has been persisted in, cannot be explained. About sixty years ago, and at a site much farther to the north, a breach is said to have occurred, which shortly afterwards closed again; but for these last sixty years there has been no such passage of the sea across the Point.

The breach was visited by the Deputy Master of the Trinity House and an Officer from the Admiralty on the 23rd of July last, and by James Walker, Esq., C.E., subsequently, all of whom attribute the breach to the practice of removing the shingle and stones.

It is understood that the Admiralty is seeking legal means to stop the cause of the mischief, but hitherto without much result; but it seems important that those interested in the navigation of the Humber should look *earnestly* into this business, as it assuredly, if not timely prevented, will affect the future prosperity of Hull.

---

## The Arctic Ships.

The following report of proceedings was received yesterday evening at the Admiralty:

"Her Majesty's ship Resolute, at the Whale Fish Islands, June 23, 1850, 1, P.M.

"Sir,—1. I have the honour to acquaint you, for the information of the Lords Commissioners of the Admiralty, of the arrival at these islands of the vessels of

the Arctic Expedition under my orders, they having left the Orkneys (as reported in my letter of that day's date) on the 15th ult.

"2. Cape Farewell was sighted at noon on the 28th ult., bearing N. 25° W., distant 63 miles, and in the afternoon of the 30th, in lat. 59° N., long. 47° W., the transport, Emma Eugenia, was fallen in with and continued in company.

"3. On the morning of the 10th inst., the wind having fallen to a calm, with every appearance of its continuing, the Whale Fish Islands being 280 miles distant, I deemed it advisable to cause the Resolute to be taken in tow by the Pioneer, and the transport by the Intrepid, leaving the Assistance to make the best of her way. The four vessels arrived here just before noon on the 14th inst., and early on the morning of the 15th the Intrepid was despatched to attend the Assistance, which ship she met in the offing, and returned with her in tow about noon.

"4. Since the arrival of the vessels every exertion has been used to clear the transport. which would have been earlier accomplished but from the actual necessity of placing ballast on board her for safety, as the last of the coals came out.

"5. Each ship is now complete between her and her tender in provisions, stores, and warm clothing, to fully three years, and the tenders have on board coals to the amount of 310 tons each.

"6. Although the ships are somewhat crowded, yet they are at a comparatively light draught; the mean being of the Resolute 14 feet 6 inches, and Assistance 16 feet 6½ inches, leaving them fully equal to a considerable increase of weight, when recollecting the statements connected with their immersion as merchant vessels with cargo on board.

"7. The tenders may be said to be deep, the mean draught being of the Pioneer 12 feet 11½ inches, and Intrepid 13 feet 1 inch; they leave this fully efficient in their engines and boilers. Some slight repairs and adjustments have been made here.

"8. I have to observe, with reference to the performance of these vessels that except in light winds, "by the wind," they have been able fairly to keep company; the Pioneer having shown a superiority.

"9. In the operation of towing under the then existing circumstances of medium draught of water, in a calm, with the sea perfectly smooth, their speed may be considered as approaching four knots, and against a moderate royal breeze, with a more than proportionate head swell about two knots.

"10. The sailing of the two ships has been, under their late trim, nearly equal, the Resolute having had a little advantage in "running," and the Assistance "by the wind."

"11. In the passage up from Cape Farewell the straits were found to be tolerably clear, the extreme of the stream of "land ice" having been met with about the latitude of that place on the 30th ult.; and that of the stream from the "pack" in lat. 66° N., long. 56° W., on the 11th inst. Bergs were not very numerous until this date, from which, up to the time of our arrival, they were found in considerable numbers.

"12. Being unable to obtain at this place any information as to the state of the ice further to the northward, Capt. Ommaney visited the Danish settlement at Lively, Isle of Disco; and states 'the season is considered fairly open; no records have been found or information obtained of the missing vessels. The expedition under the charge of Mr. Penny communicated with that place on the 2nd ultimo, all well, and great civility and attention was shown to him by the authority there, who promised that any records met with, or information procured, should be preserved and forwarded.'

"13. It is my present intention in proceeding to the northward, to communicate with Operniwick for the purpose of obtaining any information that may be there; as well as a supply of Esquimaux boots, very desirable for travelling parties.

"14 I regret to say that of the six bullocks brought from England by the transport, five died during the passage.

"15. The vessels composing the expedition may be considered in every way efficient; and it is with much pleasure and satisfaction, that I report that excellent health and spirits, good will, and unanimity prevails throughout.

"We proceed onwards at 2 o'clock p.m. this day."

I am, &c.,

HORATIO T. AUSTIN,

*Captain and in charge of the Expedition.*

*John Parker, Esq., M.P., Secretary of the Admiralty.*

---

THE PROVISIONS OF SIR JAMES ROSS'S AND CAPTAIN AUSTIN'S EXPEDITION.

The following is a copy of a letter from Capt. Austin's Expedition, published in the *Morning Herald*. It is most gratifying to the friends of the absent polar voyagers to hear that they are so well provisioned.—"Whale Islands, H.M.S.—June 22, 1850.—I believe every individual who served in the late Arctic Expedition, under the command of Sir J. C. Ross, is aware of the manner in which that expedition was victualled, both as regards the salt provisions issued from Deptford, and the preserved meats and soups supplied by contract. Therefore, as no man knows better than yourself, the many hungry bellies we were subjected to during that harassing and hazardous voyage, I take the liberty of forwarding you a few remarks, relative to the quality of the provisions issued on board the ——, which I suppose is a fair sample of the whole supplied to the present expedition, With regard to our salt beef and pork, I can only say that I have been to sea for upwards of thirty years in the Merchant and Naval Services, and in the whole course of my experience I have never eat salt meat to equal that 'served out' on board the ——. As for our *preserved meats and soups*, they are not only super-excellent in quality, but every canister that (as yet) has been opened exceeds its weight by one quarter of a pound, exclusive of the *tin* What a contrast to last voyage, when 34½lb. of salt beef used frequently to weigh 17lb., and sometimes 13¾lb., and never exceeded 20lb.; while an 8lb. canister used to weigh 6¾lb. to 6lb., one 5lb., and another 3¾lb. Had it been our fate to have been blocked up for four or five winters in Barrow's Straits, what an awful responsibility would certain parties have laid under—not only to their fellow-man, but to their God! One word more as regards the soups in the late voyage. We had three sorts of soups—viz., ox cheek, vegetable, and gravy—the two latter were never used for any purpose but to wash the dishes up with, and the former was the most inferior of its kind. This time we are supplied with only one sort of soup—viz., ox cheek, of the richest quality; in fact there is so much meat in it, that the men can afford to save the whole of their regular allowance of meat for supper and breakfast next day, subsisting solely on the soup. As regards pickles, mustard, and pepper, &c., much the same as in the *Enterprize*, with the exception of the apples, which are delicious, and in 'Jack's' opinion a glorious substitute for sour cranberries. To conclude, I have only to add that every officer and seaman in the expedition owes a debt of gratitude to the parties, be they who they may, who took on themselves the responsible duty of inspecting the provisions prior to being shipped on board. Extraordinary credit is likewise due to the Admiralty, for having deigned to listen to the well-grounded complaints made relative to the victualling of the *Enterprize* and *Investigator*; and the great pains they have taken in securing for the present expedition, the *very* best of everything the country could afford as regards provisions, not only exonerate their lordships from all blame, but is a convincing proof that it is their earnest desire, that every individual who has volunteered to serve in this hazardous enterprise, should be made as happy as human ingenuity can devise, enjoying at all times the comfort of a full belly and a warm back. In forwarding you the above remarks, I have no other object in view, but that of imparting some information on a subject which to you cannot fail to be interesting."

### The West India Mails.

A new scheme for the West India Mail Packet Service having been sanctioned by her Majesty's Government, the mails from the United Kingdom for the West Indies, Mexico, &c., will be despatched under the following arrangements:—The mails will be made up in London, as at present, on the mornings of the 2nd and 17th of each month, except when those days fall on Sunday, in which case the mails will be despatched, in the former instance on the evening of the 1st, and in the latter instance on the morning of the 18th. Mails for Havannah, Honduras, Nassau, and Jacmel, will be forwarded only by the packet leaving on the 17th, and mails for Vera Cruz and Tampico only by the packet of the 2nd of each month. For all the other places mentioned in the annexed table mails will be despatched both by the packet of the 2nd and by that of the 17th of each month. Mails for the western coast of South America will be made up for conveyance, as far as Panama, by each despatch of the West India packet, but from Panama the Pacific mail packets will only be despatched once a month, as at present. These packets will continue to be fitted to the departure from London of the 17th of the month. No mails will be transmitted by the West India packets, after the termination of the present month, to Madeira, Bermuda, or to Mobile. The correspondence for Madeira will, unless otherwise addressed, be sent by the Brazil packet leaving Falmouth on the 6th of each month; that for Bermuda will be forwarded by the route of Halifax by means of the North American contract packet; and the correspondence for Mobile will be transmitted in the ordinary mails to New York or to Boston. The West India packets will cease also, under the new scheme, to call at St. Jago de Cuba, La Guayra, and Puerto Cabello. All letters for Cuba will be despatched in the mails for Havannah, and the correspondence for Venezuela will be forwarded to St. Thomas, and conveyed thence to its destination by the vessels provided for that purpose by the Government of Venezuela. The following is a list of the ports comprised in the new scheme of the Royal Mail Steam-packet Company, with the rate of packet postage chargeable on a letter not exceeding half an ounce in weight.

(*Note.*—On letters to those places marked thus * the postage must be paid in advance, or the letters cannot be forwarded.)

| | s. | d. | | s. | d. |
|---|---|---|---|---|---|
| Antigua | 1 | 0 | *Martinique | 1 | 5 |
| Barbadoes | 1 | 0 | Montserrat | 1 | 0 |
| Belize (Honduras) | 1 | 0 | Nassau (Bahamas) | 1 | 0 |
| Berbice | 1 | 2 | Nevis | 1 | 0 |
| Carriacou | 1 | 0 | *Santa Martha | 1 | 0 |
| *Carthagena (New Granada) | 1 | 0 | *San Juan (Porto Rico) | 1 | 5 |
| *Chagres and Panama | 1 | 0 | St. Kitt's | 1 | 0 |
| Demerara | 1 | 0 | St. Lucia | 1 | 0 |
| Dominica | 1 | 0 | *St. Thomas | 1 | 5 |
| *Grey Town | 2 | 3 | St. Vincent | 1 | 0 |
| Grenada | 1 | 0 | *Tampico (Mexico) | 2 | 3 |
| *Guadaloupe | 1 | 5 | Tobago | 1 | 0 |
| *Havannah | 2 | 3 | Tortola | 1 | 3 |
| *Jacmel (St. Domingo) | 1 | 5 | Trinidad | 1 | 0 |
| Jamaica (the port of Kingston excepted, to which the rate is 1s. only) | 1 | 2 | *Vera Cruz (Mexico) | 2 | 3 |
| | | | *Western Coast of South America | 2 | 0 |

*General Post Office, July*, 1850.

---

Survey of the Pentland Frith.—H.M.S. *Comet*, Commander Otter and officers, will finish the survey of the Pentland Frith in about two months. The survey of the east and north coast of Scotland will then be completed from the Frith of Forth to Cape Wrath, and the whole published by the Admiralty,

excepting the part between Duncansby Head and Holburn Head, which will also be published as soon as the Pentland Frith is completed. A spot of from five to eight fathoms has been discovered midway between Duncansby Head and Stroma, causing the dangerous race called the Bore of Duncansby. Much more valuable information may be expected, especially the set and velocity of the tides, which will form an important philosophical investigation, and, when published, it is to be hoped that this most hazardous navigation will be rendered comparatively easy. This important service will afford to the Mercantile Marine of all nations that invaluable information which will generate in them as much confidence in navigating the Pentland Frith as if they were on the broad Atlantic. Very few vessels in the service are equal to steaming against the rapid "races" of the Frith, the velocity of one which was recently measured being 8·6 knots, or ten miles an hour.—*North British Mail.*

---

Junction of the Atlantic and Pacific Oceans.—The convention between her Majesty and the United States of America, relative to the establishment of a communication by ship canal between the Atlantic and Pacific, was signed at Washington, on the 19th of April last, by Sir H. L. Bulwer and Mr. Clayton, Secretary of State of the United States, and the ratifications were exchanged on the 4th of July. According to the articles of the convention the two governments declare that neither the one nor the other will ever obtain any exclusive control over the ship canal, erect any fortifications commanding the same, nor exercise any dominion over Nicaragua, Costa Rica, the Musquito Coast, or other part of Central America. It is also agreed that vessels of Great Britain and the United States traversing the canal shall, in case of war between the contracting parties, be exempted from blockade, detention, or capture by either of the belligerents; that the persons employed in making the canal shall be protected; and that, when completed, its neutrality shall be guaranteed, so that it may ever be open and free. It is likewise contracted that the two governments shall give their support and encouragement to such persons as may first offer to commence the undertaking.—*Shipping and Mercantile Gazette.*

---

Surgeons in Emigrant Ships.—We find the following important passage in a recent Australian report.

"I am under the necessity of reporting that some of the surgeons of the passenger ships were quite unfit for their responsible situations, being, in some cases, habitual drunkards, and, in others, madmen; and passengers very justly complain of their lives being placed under the care of such persons. I must observe that there is very little inducement for respectable members of the profession taking the employment of surgeon on board passenger ships, the remuneration being seldom above 20*l.* and a cabin passage. It would be a great protection to passengers if the surgeons of passenger ships were paid in the same manner as those employed by the government, viz., at a certain rate for each passenger, and the payment subject to be withheld at the discretion of the governor for misconduct during the voyage.

"At present they may behave as ill as they please with impunity, there being no penalty imposed by the provisions of the 'Passengers Act' for misconduct or neglect of professional attention to passengers. And, moreover, there is little or no inducement for properly qualified persons undertaking the duty, on account of the low rate at which they are engaged."

---

Anticosti.—From a source entitled to credit, we learn there is some probability of the Imperial Government making overtures for the acquisition of this island as a penal colony, not only for the United Kingdom but also for these provinces. The great advantages to British North America, would be that this island, which is now avoided as the great danger of the voyage, would become a place of safety; for by building a breakwater by convict labour and making this a depot for coal, the gulf and river would be crowded by English steamers, and

the voyage from Ireland to Quebec be safely calculated on at twelve days. The advantage to England would be, that the expense of moving convicts would not be over £3 or £4 instead of £15 to £20, and as it would save the provinces all convict establishments, convert a place of danger into one of safety, to outward and inward bound, and disturb no one except the bears of the island, we confess we should view such an establishment as a substantial benefit to the provinces. In fact, making a safe harbour of Anticosti would of itself be an estimable boon, and situated as this island is, there is no danger of contact or demoralization. Indeed, we question if the convicts would not in reality be as much apart from us as if they were at Botany Bay.—*Quebec Chronicle.*

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory From the 21st of July, to the 20th of August, 1850.

| Month Day. | Week Day. | Barometer. In Inches and Decimals | | Thermometer In the shade. | | | | Wind. Quarter. | | Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | Su. | 30·00 | 30·00 | 64 | 69 | 57 | 71 | SE | SE | 2 | 3 | bc | bc |
| 22 | M. | 30·06 | 30·05 | 65 | 76 | 54 | 76 | SE | SE | 2 | 2 | bc | bc |
| 23 | Tu. | 29·95 | 29·90 | 72 | 79 | 60 | 80 | SE | E | 4 | 4 | b | bcp 3) |
| 24 | W. | 30·00 | 30·02 | 64 | 69 | 57 | 71 | W | W | 3 | 3 | bc | b |
| 25 | Th. | 29·81 | 29·73 | 59 | 60 | 54 | 61 | SE | SE | 4 | 4 | or (1) (2) | or (3) (4) |
| 26 | F. | 29·71 | 29.73 | 58 | 65 | 51 | 67 | SW | W | 4 | 3 | bc | bc |
| 27 | S. | 29·75 | 29 78 | 56 | 61 | 54 | 62 | W | NW | 3 | 3 | or (2) | op (3) |
| 28 | Su. | 29·95 | 29·99 | 59 | 65 | 55 | 67 | N | NW | 4 | 2 | o | o |
| 29 | M. | 30·07 | 30·11 | 59 | 70 | 55 | 71 | NE | NE | 1 | 2 | o | bc |
| 30 | Tu. | 30·22 | 30·17 | 61 | 69 | 56 | 72 | NE | W | 1 | 1 | bc | bc |
| 31 | W. | 30·14 | 30·10 | 64 | 72 | 58 | 74 | SW | NE | 1 | 1 | bc | bc |
| 1 | Th. | 30·22 | 30·22 | 61 | 66 | 57 | 67 | N | NE | 1 | 1 | or 1) | o |
| 2 | F. | 30·19 | 30·12 | 60 | 66 | 57 | 67 | S | SW | 1 | 2 | or 2) | o |
| 3 | S. | 30·11 | 30·10 | 65 | 68 | 59 | 71 | SW | NE | 1 | 2 | op 1) (2 | bc |
| 4 | Su. | 29·99 | 29·92 | 66 | 74 | 57 | 75 | SW | SW | 4 | 4 | bc | bc |
| 5 | M. | 29·80 | 29·74 | 66 | 75 | 54 | 76 | S | SW | 3 | 3 | bc | b |
| 6 | Tu. | 29·76 | 29·76 | 63 | 70 | 57 | 71 | N | NE | 2 | 1 | bc | or (4 |
| 7 | W. | 29·92 | 29·92 | 60 | 72 | 53 | 73 | NW | SW | 2 | 3 | bc | bcr 4) |
| 8 | Th. | 29·79 | 29·76 | 66 | 69 | 57 | 71 | SW | SW | 2 | 4 | o | o |
| 9 | F. | 29·77 | 29·75 | 64 | 67 | 54 | 68 | SW | SW | 5 | 6 | qbcp 2) | qbc |
| 10 | S. | 29·87 | 29,92 | 62 | 71 | 54 | 72 | W | W | 5 | 3 | qbc | qbc |
| 11 | Su. | 29·86 | 29·80 | 64 | 70 | 60 | 72 | SW | SW | 4 | 4 | b | bcp (3 |
| 12 | M. | 29 76 | 29·77 | 59 | 58 | 54 | 62 | SE | N | 1 | 1 | bcp 2) | bctlp [3] |
| 13 | Tu. | 29·89 | 29.89 | 58 | 57 | 50 | 68 | N | N | 2 | 2 | o | bc |
| 14 | W | 30·04 | 30·04 | 60 | 68 | 57 | 69 | N | NE | 4 | 4 | o | bc |
| 15 | Th. | 30 02 | 30·01 | 58 | 65 | 56 | 67 | N | N | 4 | 4 | op (2) | bc |
| 16 | F. | 29·94 | 29·98 | 62 | 74 | 54 | 74 | N | N | 5 | 4 | qb | bc |
| 17 | S. | 30·03 | 30·02 | 66 | 73 | 60 | 74 | W | NW | 1 | 2 | bc | o |
| 18 | Su. | 30 02 | 29·92 | 64 | 72 | 57 | 73 | W | W | 3 | 5 | bc | qbc |
| 19 | M. | 29·82 | 29 78 | 58 | 66 | 53 | 67 | W | NW | 6 | 6 | qbc | qbc |
| 20 | T· | 29·72 | 29·72 | 56 | 64 | 50 | 65 | W | W | 5 | 4 | qbc | bc |

July, 1850.—Mean height of the barometer = 29·977 inches; mean temperature = 61·7 degrees; depth of rain fallen = 2·80 inches.

## TO CORRESPONDENTS.

We have received Lieut. Hay's "Guernsey Chart," and his book of Channel Pilotage." The crowded state of our pages by the "Mercantile Marine Act," and other important subjects, prevents our announcing them in their proper place.

Our thanks are due to H.M. Consul at the Azores for his communication.

The book of "Night Signals" received.

Hunt, Printer, Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

## Naval Chronicle.

OCTOBER, 1850.

### The Antilles,—*Sombrero, Anguila, St. Martin, &c.—Described by Capt. E. Barnett, R.N., late of H.M.S. Thunder.*

*The Island of Sombrero.*—The small rocky islet of Sombrero is the north-easternmost of the Antilles, and its centre lies in lat. 18° 35′ 45″ and long. 63° 27′ 46″. It is three-quarters of a mile long from N.N.E. to S.S.W., and not more than 150 fathoms wide; at its north end it is about twenty feet above the level of the sea, and from thence is an ascent by two distinct steps to the middle of the island, where it reaches the height of thirty-seven feet; its surface is a perfect flat rock covered here and there with samphire, grass, and cactus; on the upper step has been thrown up by some violent action several large masses of rock of the same character as the islet, about eight feet square, and which at a distance have the appearance of huts. On all sides it is a precipitous rock, perfectly inaccessible except at a little bight on the west side, a quarter of a mile from the south end, and a short distance to the southward of a small rock, awash, where under very favourable circumstances, by watching an opportunity you may jump on to a flat ledge of the cliff, and with some difficulty ascend to the summit. A bank of soundings runs off from its south-west end with 12 to 14 fathoms water, but its extent has not yet been determined: we anchored in 14 fathoms, with the south end of the island bearing E.b.S. a cable's length and half distant. From the island the high land of St. Martin is distinctly seen in clear weather, bearings S.E.$\frac{3}{4}$S. distant forty miles. Dog Island bears from it S.E.b.S. twenty-two miles. In the months of March and April it is covered with sea birds.

*The Island of Anguila*, so named by the Spanish discoverers from its supposed tortuous figure resembling an eel, lies nearly on a straight line N.E.b.E. and S.W.b.W. with no indentation of any extent on either of its shores.

It is fourteen miles long, and from the middle of the Island, or abreast Sandy Island to within two miles and a half of its north-east point, its northern side is from 150 to 213 feet above the level of the sea, its greatest elevation being in the immediate vicinity of Crocus Bay, and this part is from two to two and half miles broad; towards its west end it decreases gradually to a height of thirty feet, and the little conspicuous hill which terminates its north-east point is about eighty feet in height. Its south-east side as far as Sandy Hill Bay is about the same height, but from thence to the west end the southern shore is very low. The whole of this side of the island, as for as Rendezvous Bay, is skirted within from one to two cables' length of the shore by a coral reef dry in many places; through which there are several little openings, which admit boats of large size into good shelter: the reef is steep to, and you may run down or approach the shore, within half a mile without fear.

The reef terminates at the low rocky point which forms the south-east point of Rendezvous Bay, from which it extends two-tenths of a mile; and having avoided this, a small vessel, may anchor in the bay in four fathoms where wood may be obtained.

*The Blowing Rock*, (so called from the sea occasionally forcing itself through an opening on the surface,) has the appearance of a whale blowing, is a small rocky islet S.E.b.E. three-quarters of a mile from the south-west point of the island, and is six feet above the level of the sea; it is steep to on its south side, but inside it there is no passage except for boats.

*Anguilita* is a small rocky cay twenty feet in height covered with brushwood, and lies a quarter of a mile W.S.W. from the end of the island; and to which it is almost connected by coral heads, leaving a passage only for boats; it is bold to on its west side. Having rounded the west side, the South Wager will be seen standing out about two-tenths of a mile from the shore, which is a remarkable small barren rock about twenty feet in height; as also the perpendicular cliffs forming the south-west point of Anguila on its north side. From hence to the east end of Long Bay beach, the shore is clear and steep to.

*Sandy Island* is a low strip of sand covered with brushwood to the height of only six feet, and lies one mile and three-tenths W.N.W. from Road Bay Bluff, and on the same line of bearing, four-tenths of a mile from the island is Dowling Cay, a very small rocky islet about four feet above the level of the sea; there is no passage between the two, and shoal ground extends from Sandy Island, to the south-east nearly half a mile, and to the westward a mile, leaving a channel between the shoals and Anguila nearly half a mile wide. The remarkable peak at the south end of the high land of St. Martin which we have called the the Face Peak, hereafter to be described, in one with the rocky point

which terminates the east end of Long Bay bearing N.N.W., clears the west end of the shoals: on the north side the bank is steep to.

From Long Bay Point which is low and sandy, the island becomes more elevated, and from thence to Road Bay the face of the shore is composed of cliffs almost perpendicular, which are remarkable and about 150 feet in height.

*Road Bay* is nearly a mile in width, and six-tenths in depth; and affords an excellent anchorage for small vessels of twelve or fourteen feet draught: on the low sand bank which forms the inner side of the bay there is a small settlement, the inhabitants of which cultivate the large salt pond immediately behind it.

From Road Bay the shore still continues bold and scarped, turning gradually to the north-east and north until it terminates at Flat Cap Point forming the northern extremity of Crocus Bay.

In the eastern corner of Crocus Bay is the principal settlement in the island; the custom-house stands at present on the summit of the hill, which is 213 feet above the level of the sea, and is distinguished by a flag-staff at its north-east end ; the landing-place is on the Sandy Bay, directly below it, to the northward, but there is generally a heavy surf on the beach. There is a very good anchorage in the bay with the prevailing trade winds, by bringing Flat Cap Point to bear N.N.E. and and the custom-house S.E.$\frac{1}{2}$.E. in 7 fathoms white sand, good holding ground half a mile off shore; but with the wind from the westward it is not safe: this, however, seldom happens, and gives sufficient warning to enable you to get under way. On the east side bay, there is a very remarkable high perpendicular cliff, which serves to point out the anchorage, when beating up from the westward.

Near the middle of the bay there is a coral patch nearly two-tenths of a mile in extent, with a depth of 5 and 6 fathoms which should be avoided. The marks for it are, the Jewel Rock, a very small rock lying close to the shore half a mile to the north-east of Flat Cap Point just seen open of that point, and a remarkable large tamarind tree on the north side of the landing beach in one with a conspicuous white house on the lowest part of the hill above the beach.

These are two ways by which a ship may approach the anchorage; from the west between Prickly Pear Cays and Reef, and the island; and from the north round the east end of the above reef. The first is by far the safest; indeed there is no danger whatever, for a ship may anchor for the night, if necessary, under the south side of the reef in perfect safety; the northern channel should not be attempted without a pilot. This channel from Flat Cap Point to the end of the reef which bears from it N.N.E. is two miles wide; near the centre of it however, there is a dangerous narrow ledge, the south end of which bears N.b.E. from Flat Cap Point eight-tenths of a mile, and extends in that direction half a mile further, on which there is as little as twenty feet, and which breaks heavily in fresh winds. There is a clear passage between it and the island, and also between it and the reef, which is a mile wide. We have given marks in the plan of the bay, but they can only be of use to

those who have a good local knowledge of these islands; in clear weather, nevertheless, a vessel leaving the anchorage bound to windward may beat through with safety with the assistance of a pilot.

Stock and firewood may be obtained here, but no water; yams are in abundance, and will keep sound on board ship by merely sprinkling over them wood ashes, for four months.

We may notice that the anchorage is exposed to the heavy rollers, which frequently beset the coasts of this group of islands during the period from November to March, and which striking on the broadside, renders a ship's position exceedingly uneasy and uncomfortable. It is difficult to account for this phenomenon in these seas, as it occurs in calms as well as in strong breezes, and it reaches as far as Antigua, and probably to islands still further south. Continuing our description of the island to the eastward of Crocus Bay the shore becomes skirted by shoals: two miles from Flat Cap Point a dry reef sweeps off to the north-east, a mile from the shore, and four miles from the point; and nearly half a mile from the main reef there is a dangerous breaker, which is not seen at all periods and is very steep to; the shore continues foul to within a mile of the north-east point of the island. A ship, however, beating up on this side will ensure her safety by common attention to the lead, the depth suddenly increasing on your approach to within from 16 to 22 fathoms of the breaker: within the reef at the west end there is boat shelter, and through an intricate opening near the east end small droghers find an anchorage.

*Scrub Island.*—Scrub Island, called by Spanish navigators Anguilita is separated from the north-east point of Anguila by a narrow channel three-tenths of a mile wide, through which there is a deep vein of water; but it should not be navigated, as the point of Anguila is skirted by a reef nearly dry a cable's length off, upon which you might be thrown by the sudden flaws of wind which come off the ends of all these islands.

Scrub Island takes the same line of bearing as Anguila, and is two miles long and half a mile broad; it is covered with brush wood and small trees, which rise to the height of fifty feet near the west end; its east end is very low, and from it there extends a narrow strip of rocks which become detached near the extremity to the distance of half a mile; they are bold to, but this end of the island should be carefully approached from the north-east as you are apt to come upon these rocks, before you are aware of it, being hidden by the high part of the island behind them, and the lead gives no warning. In strong breezes the sea breaks over them although they are eight or ten feet above the level. About the centre of the north side of the island, there is a little hill of white sand stone, which when the sun shines on it is very conspicuous. Three-quarters of a mile west of this and nearly a mile north of the west end of the island is Little Scrub rendered equally conspicuous by the contrast in colour, it being a barren precipitous black rock rising abruptly on its north-east side to a height of forty feet, there is no ship channel between the islands; but it may be approached from

the northward without fear. The south side of Scrub Island is quite clear, and there is good landing on the sandy beach at the north-west end of the island where there is good shooting.

*Dog Island.*—Dog Island is the north-westernmost of this group, and lies eight and a half miles N.N.W.$\frac{3}{4}$W. of Anguilita, and ten and a half miles W.b.N.$\frac{1}{2}$N. of Flat Cap Point at Crocus Bay. It is one and a half mile in extent from east to west, and eight-tenths of a mile from north to south, tapering to points at its east and west ends, and rising to a height of eighty feet near the centre; it is covered with brushwood and grass, which affords pasturage to an excellent breed of horses and sheep, which are tended by two or three inhabitants from Anguila; its east end and south side are bold and steep. Two-tenths of a mile from the south shore there is a remarkable little black rock four feet in height, nearly abreast of which there is very good landing on the beach just within a bluff rocky point which forms the south extreme of the island. The west end of the island on its north side is terminated by a high perpendicular cliff.

*West Cay.*—From hence a broken ledge of rocks runs out, until it reaches a small low rocky cay six feet in height, which lies three-quarters of a mile west of the island; it may be passed without fear within a quarter of a mile in daytime, but should be approached very cautiously during the night, as the lead is not of much use.

*Middle Island.*—Middle Island is nearly connected to Dog Island by a ledge of dry rocks; this is a remarkable barren islet, its north-east side being a bold perpendicular black rock sixty feet in height.

*East Cay* is a low and rocky islet covered with brush wood, and nearly connected in the same way with Dog Island, and bold to; you have no bottom with 100 fathoms a mile to the northward of Middle Island.

*The Prickly Pear Cays* are divided by a small boat channel. The westernmost is a narrow rugged rock, with brushwood on its summit to the height of twenty-five feet, three-quarters of a mile in length from E.b.S., to W.b.N., upon which there is no landing. The eastern island is a little lower, four-tenths of a mile long, and three-tenths broad; landing may be effected in a little bight on the south-west side. Between these islands and Dog Island, there is a clear channel two miles and a half wide; from the west end of the Prickly Pears, however, irregular soundings extend to a distance of half a mile, upon which the sea breaks with heavy rollers. Indeed, there is at almost all periods a heavy swell between the islands; and it is therefore advisable for vessels bound to the northward, to pass to the westward of Dog Island with a scant wind. Three-quarters of a mile to the northward of the westernmost island, and two-tenths of a mile north of the easternmost, are the Great and Little Flirt Rocks, two small rocky islets; the Great Flirt about twenty feet in height, the little one eight or ten; the ground is foul around them.

*North Wager.*—The North Wager is a very small rock, only three feet above the level of the sea.

From the Little Flirt commences the reef, dry in most places, it stretches to the eastward five miles and a quarter, and terminates at the northern entrance to Crocus Bay already described.

*Seal Islands.*—In the reef one mile and a half from the west end, are several narrow low rocky islets called the Seal Islands, and which are about five or six feet above the level of the sea. To the northward of these islets, the reef is skirted by detached coral heads, and should not be approached within at least a mile. To the southward of the Prickly Pear Islands, and between the Seal Cay Reef and Anguila, there is excellent anchorage in from 10 to 12 fathoms, and out of the influence of the rollers.

In approaching the islands we have described, from the northward, from their being backed by the high lands of St. Martin, navigators are very apt to make a wrong estimate of their distance from the shore, and which has led to fatal mistakes on the north-east side of Anguila.

Anguila is separated from St. Martin by a clear navigable channel, three miles and a half in width in its narrowest part, which is between the Crole rock and Blowing Point.

*St. Martin.*—The general figure of St. Martin forms an equilateral triangle, its sides facing to the east; north-west, and south-east, each 7½ miles in length, but it is deeply indented and cut into by bays and lagoons, some of which afford good anchorage. In comparison with many of the Antilles it may be called only hilly, its highest part, which is the table land in the centre of the island, being 1,361 feet above the level of the sea. There are however several remarkable elevations; the Saddle Hill on the north-west end of the island, although only 377 feet in height, is a conspicuous object when seen from the north side of Dog Island. Morne Fortune forming a bold promontory and conical peak on the east side of Simpson Lagoon 293 high; the southernmost bare rocky peak of the western range of hills, which when seen from the north-west and south-east, resembles a colossal face on its north-east side, leaning back 900 feet high; and the conical hill upon which is placed Fort William in Great Bay 697 feet in height. The north-west part of the island belongs to the French, the south-east part to the Dutch. The west end of the island terminates in a low sandy point, the north-east point is high and bold, and being separated from the main ridge by a deep broad valley, has the appearance of a separate island, when seen at a distance from the W.N.W. or E.S.E. direction. The south-east end is a lofty bluff, faced by a very remarkable perpendicular white cliff, and from which it receives the name of Point Blanche.

*Great Bay.*—This bluff forms the south-east point of Great Bay and Point Amsterdam, a rocky promontory, on which stands the ruin of a fort and barrack. The south-west point is a mile in breadth, and nearly the same dimensions in depth; the north side of the bay is a very low sandy ridge, upon which is the town of Philipsburgh, and immediately at the back or north side of it, there is an extensive and valuable salt pond; the eastern shore of the bay is very high with deep valleys, through which the wind rushes with great force, and should be guarded against after rounding Point Blanche on entering; the heights terminate to the

north-east in a remarkable conical peak 633 feet in height. As you advance into the bay, the breeze generally draws off from the town; you should therefore pass the Point Blanche within a quarter of a mile. From a short distance to the north-west of the bluff, a narrow sand bar sweeps round the east and north sides of the bay, four-tenths of a mile from the shore having from eight to ten feet on it, and a quarter of a mile from the western shore there is a cut through which eleven feet may be carried. Inside there is a narrow deep vein having from twelve to fifteen feet, there is also a similar cut through the east end. Large ships should anchor nearly midway between the points in 6 fathoms, Point Blanche bearing E.S.E., the Governor's Staff which is near the east end of the town N.b.E. $\frac{3}{4}$ E. Vessels drawing fourteen feet, may lie further in with the Governor's Staff in one with the highest peak of the highest hill on the east side of the bay above noticed, and the second or outer bluff to the westward of Point Amsterdam in one with the ruin of the fort on that point in nineteen feet; the holding ground is good, but generally heavy rollers make the riding here very uneasy, and cause a heavy surf on the beach. In approaching the bay from the southward or beating up to it from the westward, great care should be taken to avoid the Man-of-war, or Proselyte shoal.

*Proselyte Shoal.*—This dangerous rock is not above 100 feet in extent, and has from fifteen to eighteen feet water over it and seldom breaks in the strongest breezes. The marks to find it are Fort William in one with the ruin of the barrack on Point Amsterdam, bearing north 1° west, and the Governor's Staff in one with a remarkable house standing on the lowest part of the ridge of hills to the north-east of the town, and close to the highest conical peak before noticed, on the east side of the bay; this however is a difficult mark to be distinguished by a stranger. It bears south-west from Point Blanche one four-tenths of a mile distant. On its south and west sides, it lies just within the line of 10 fathoms water; to the south-east of it a ledge runs off three-fourths of a mile with a depth of from 6 to 9 fathoms, and warns you of your approach from this quarter. In standing in from the southward you should not open the conical peak on the east side of the bay before noticed, to the westward of Point Blanche Bluff. In working up from the westward within it do not open the eastern or highest hill of St. Bartholomew to the southward of the Grouper Island or Mollybeday, more than its own breadth to the eastward of Point Blanche.

To the westward of Point Amsterdam, the shore becomes indented by small sandy bays separated by bold woody heights as far as the low rocky point which forms the east end of Simpson Bay, two and a quarter miles distant. From this point a narrow ledge on which there is from 2 to 4 fathoms stretches to the southward half a mile.

*Pelican Rocks.*—The Pelican Rocks a cluster of small detached heads three or four feet above the level of the sea lie to the north-west of the point a cable's length and a half from the shore.

*Simpson Bay.*—From hence a low sandy shore sweeps around to the westward forming Simpson Bay, a mile in width and a half a mile

in depth: there is anchorage midway between the points in the centre of the bay in 4½ fathoms but not good; at the east end of the bay there is a boat channel into the Lagoon; from hence to the west end of the island, the shore is very low, sandy beaches separated by low, rocky, and sandy cliffs. Great caution should be observed in rounding the west end of the island, particularly in the night, for a very shallow spit which may be seen in the day time when the water is clear, runs off to the W.S.W. for three-quarters of a mile, therefore, in rounding this end of the island the five islands should be kept open off St. Martin until you are certain of being to the northward of the spit; and then indeed a ship should be cautious not to haul off too suddenly, or come within the depth of 10 fathoms, as the north-west end of the island is foul nearly a mile from the shore. In working up to Marigot, it is advisable to keep the Anguila shore on board, and not to come within the depth of 7 fathoms on the St. Martin side, until the western Bluff of the bay of Marigot bears south.

*Marigot.*—Marigot is the chief town and port of entry of the French part of the island, and lies at the base of a hill in the centre of the bay on which is seen the fort (almost in ruins) which protects it. The bay between Bluff Point on the west, and Hancock Point on the east side, is a mile and a half wide and a mile deep, and has very good anchorage with the wind from all points except the north-west, in from 3½ to 4½ fathoms water.

(*To be continued.*)

---

## Influence of the Moon on the Earth's Atmosphere, *translated from the French of M. Arago, by Com. L. G. Heath, R.N.*

(Concluded from page 504).

*Kitlands, Dorking.*

Sir.—I have now furnished your readers with a translation of that portion of Mr. Arago's paper which more especially concerns the Navy.

The remainder is devoted to a refutation of what may more strictly be called the *popular* fallacies on the subject, and would be more suitable, if translated "in extenso," to any agricultural journal than to the *Nautical Magazine.* I propose, therefore, to finish my task by giving a list of the various supersititions which Mr. Arago combats in great detail, and in those cases in which there is any thing at all to be said in favor of the tradition, I shall give a condensed account of the argument.

I have the honor to be,

Sir,

Your obedient servant,

L. G. Heath.

*To the Editor N.M.*

*On the cycle of* 19, *and* 9 *years, respectively, in which the same series of atmospheric phenomena are said to recur.*

With respect to the period of 19 years; Mr. Arago shows that although the relative angular positions of the sun, moon, and earth do recur in a certain series the period of which is almost exactly 19 years; as the apsides revolve in a period of 8 years and 10 months, it follows that the actual distance of the moon from the earth, upon which the lunar influence on weather must much depend, is not the same at the beginning and end of each 19-yearly interval. This reasoning would lead him, *a priori*, to disbelieve in the popular notion; and he is confirmed in his opinion by the following table, which shows great variety of *extremes of temperature* and of *quantities of rain* for pairs of years separated by multiples of 19 years from one another.

| Year. | Maximum of Centigrade Thermometer. | Minimum of Centigrade Thermometer. | Fall of Rain in Inches. |
|---|---|---|---|
| 1725 | +31·2 | — 4·1 | 18·6 |
| 1782 | +32·5 | —13 8 | 23·5 |
| 1709 | +30·6 | —21·0 | 23·2 |
| 1728 | +30·6 | — 8·4 | 17·2 |
| 1710 | +28·4 | —13·7 | 16·8 |
| 1748 | +36·9 | —12·6 | 18 4 |
| 1711 | +29·6 | — 9·5 | 26·8 |
| 1730 | +31·2 | — 6·9 | 17·1 |
| 1733 | +32·5 | — 2·1 | 9·6 |
| 1771 | +33·7 | —12·7 | 19·2 |
| 1734 | +31·9 | — 5·0 | 18·7 |
| 1753 | +38·1 | —11·5 | 18·9 |

With respect to the 9-yearly cycle, Mr. Arago observes that the apsides complete their revolution in 8 years and 10 months, so that the full moon of January would be at the same distance from the earth as that of October of the 9th year following; and therefore, for consistency's sake, those who adopt this theory must expect the same weather in January and October, which is clearly absurd. The following table is appealed to as a practical proof of the fallacy of the received opinion.

| In the Nine Years. | | Fall of Rain at Padua in Inches. |
|---|---|---|
| Commencing. | Ending and Including. | |
| 1725 | 1733 | 325 |
| 1734 | 1742 | 262 |
| 1743 | 1751 | 320 |
| 1752 | 1760 | 333 |
| 1761 | 1769 | 320 |

If the horns of the crescent are very ragged on the 3rd day of the moon, the sky will be clear for the rest of the month.

If the upper horn appears dark when the moon sets in the evening, it will rain towards the next new moon. If the lower horn has this appearance, it will rain before full moon; and if the central part of the crescent, it will then rain at full moon.

If the moon, when four days old, casts no shadow; expect bad weather.

Mr. Arago observes that many similar prognostics may be found in old authors, and that they all arise from mistaking the effect for the cause. It may be true that a certain state of atmosphere is typical of the weather that is to follow; and that state of atmosphere would show itself by the particular appearance of the moon as to clearness, &c.

*On the influence of the ruddy moon* on vegetation, especially in the neighbourhood of Paris.*

That moon which becomes full towards the end of April, or the beginning of May is called the ruddy moon. At this season the night air is frequently at a temperature, but little above freezing; and when the sky is clear, and the moon therefore visible, radiation will often reduce the temperature of leaves, &c., of plants below the freezing point. Thus the phonomena attendant on radiation of heat are ignorantly attributed to the moon.

If you wish the timber to be good and durable, you must fell your trees during the waning moon.

If you would have your cabbages and lettuces to shoot; if you would have double flowers, or early fruit: you must sow, plant, and prune during the waning moon.

If you wish for fast-growing and vigorous plants or trees; you must sow, plant, graft and prune during the waxing moon.

If you gather your harvest with a view to selling its produce; you should reap it at full moon: for corn fills out during the waxing moon. But if you wish to preserve it free from spoiling then reap at new moon.

This may be merely another way of stating that there is more rain during the waxing than during the waning moon ; which we have seen is proved to be true in Germany.

Wine not made all in one lunation is never of good quality, and is always thick.

When the moon is in conjunction, boil your jam at night; but boil it in the day-time when she is full.

Moonlight darkens the complexion.

When there is moonlight the sky is clear; when the sky is clear, radiation of heat from the skin takes place, and this may possibly induce some physical effect on its colour. If this explanation be correct, it

* (Note by translator.) I can find no popular term for the French "lune rousse".

shows that, as in the case of the red (ruddy) moon, the phenomenon is one attributable to radiation of heat and not to moonlight.

Every substance upon which the moon shines becomes covered with damp. Moonlight hastens the decomposition of animal substances.

Here again radiation will explain the facts.

Crabs, oysters, and other shell-fish are larger during the waxing than during the waning moon.

More or less marrow is found in the bones of animals, according to the phase of the moon in which they are killed.

More children are born towards the end of the waning moon, than at any other time in a lunation.

Set eggs for hatching, at new moon.

Experiments made by Mr. Giron de Buzareingues show there is some value in this recommendation. It may be that at new moon the darkness induces a state of restlessness in the hen; for as Mr. Giron observes, "very steady sitters either kill their young or hinder their development by too much heat."

Mr. Arago concludes his most interesting paper with an analysis of the evidence on the question of the influence of the moon on sickness and health. He inclines to the opinion that there is no such influence, but observes that the nerves of the body are so delicate and sensitive that what is perfectly inappreciable by any known instrumental means of measurement, may yet possibly produce an effect upon them.

---

EXCURSION TO THE LAKE OF NICARAGUA UP THE RIVER SAN JUAN.—*By Mr. George Lawrence, Assistant-Surveyor of H.M.S. Thunder, Com. E. Barnett, in March*, 1840.

(Concluded from page 494.)

*Monday* 16*th*.—The morning broke serene and beautiful, disclosing all the objects on the lake sufficiently clear for our purpose. The beach is chiefly composed of finely triturated basalt, micaceous, and impregnated with spiculæ of iron, as shewn by the magnet. The beach extends right and left to a great distance, has no wharfs or jetties, although very shallow, and exposed to much surf. Here we saw hundreds of women employed in washing and bleaching clothes from daylight till dark. Our instruments and mode of observing excited their curiosity to such a degree that we were rather incommoded by their crowding round us as if they were inclined to mob us for magicians, or something worse. The spot of our astronomical observations was one hundred fathoms south of the old semi-circular fort.

I gave the Ramas a dollar each, with permission to take a stroll through the town of Grenada, all dressed in their new frocks and trousers, (made on board,) with which they seemed to be highly

delighted. Leaving the chronometers in charge of Deernitt, with a strict injunction not to allow them to be touched, nor to suffer the canoe to be moved, Mr. Scott and I were on our way to Mr. Bailey's, when we met the padrone, who informed us that the second magistrate or Alcalde had detained the Indians, and would not allow them to walk about the town, expressing a wish also to see me. Accompanied by Mr. Bailey who kindly profferred to interpret for me, I was conducted to the town-hall, where I found this functionary with his coadjutors, seated in all the plenitude of authority, but certainly without the most remote semblance of what I expected. He requested to know the object of our visit to Grenada, and complained with an air of offended dignity that I had not informed him, or any of the public officers of my arrival; to which I responded in suitable terms, but finding that all my endeavours to explain the matter were unavailing, I requested him to send to the Gefe Politico for the letter which I brought from San Juan, and then he would see who and what I was. After much hesitation and apparent suspicion that I was not what I seemed to be, he at length consented to have it produced, and to my very great surprise and amusement, I found that this great character, at the head of the table before whom I was arraigned like a criminal, could not read his own language, but handed the letter over to one of the others, who after much bother of spelling, &c., managed to make it out, but not to their satisfaction. The Ramas were liberated, but I was requested not to leave the town until this momentous affair had been further deliberated upon.

I ought here to remark that the central Americans and New Grenadians have long apprehended an irruption of the Musquito Indians, with whom these Ramas are in some way connected, and knowing that our government have recognized the former as a nation, they, the authorities in Grenada, might very probably suspect that our visit to this unfrequented place had some sinister view, as among other questions they appeared anxious to know whether or not I was a military officer.

An hour had scarcely elapsed after the above ridiculous scene when I was again summoned before this august tribunal, and requested to deliver up my observations, to which not unreasonable demand, I replied that "although I had them not about my person they were extremely welcome to a copy of them." After a deal of delay, without further insisting upon my papers, they consented to my departure, and to prevent a repetition of another interruption, I requested to be provided with a passport to Nicaragua, which they declined saying "It was not necessary;" and neither did I afterwards find any occasion for one. Before they would, however, allow me to leave this inquisitorial court, in which they could elicit nothing to alarm their apprehensions, they made a demand upon my purse for four dollars, being, as they said, "a debt owing to some one by our padrone;" which I agreed to pay on condition that they would give a receipt to Mr. B. Such petty annoyances as this, are, I am told, every day occurrences: instead of

assisting and forwarding the views of merchants, and other foreign visitors, on their arrival in this town, they throw every impediment in their way, and sometimes practice shameful extortions.

On our return to the beach we found our gallant Ramas all dead drunk, stretched around the canoe as if they were so many corpses. Like all other Indians who have had intercourse with Europeans, and above all, I am ashamed to say, with our own countrymen and selves, they have acquired a fondness for ardent spirits, to which they make the most deplorable sacrifices of life, limb, and property.

The town or city of Grenada is situated about half a mile from the lake, and about one hundred feet above its level; the only conspicuous objects on approaching from the eastward are the cupolas of the two principal churches, viz: the parochial and the Guadeloupe, which with the town-hall and barracks, situated in the plaza or square, are the chief buildings in Grenada: the houses, with one exception, are all of one story, built in the old Spanish style, and so arranged that the streets run at right angles to each other; the latter are roughly paved, but not much trodden, so few people are to be seen moving about, and there is such an apparent absence of shops and stores that the stranger would be led to conclude that the place was almost deserted, and trade completely at a stand still. But I am told that a considerable business is carried on in a clandestine manner, owing to the existing anarchical state of the country where there is little or no security for property, the traders who are generally foreigners, finding it politic to make as little display as possible, in order to elude the exactions of a rapacious government.

The population of Grenada is estimated at 9,000, of whom only 300 can call themselves the legitimate descendants of the old Spaniards, and they are not entirely white; all the rest are a spurious progeny, called in the language of the country Ladinos or Mestizos, of whom it is said as of all the inhabitants of the state of Nicaragua, that they are grossly ignorant and depraved; even the most enlightened of them are quite apathetic to everything connected with their civil polity, the principles of which they neither understand nor respect. Central America as one republic, can hardly now be said to have any virtual existence, as the federal states have all revolted from each other, and are struggling for an independence which must eventually terminate in their total annihilation. In the present disorganized state of things, it were vain to look for order or regularity in any department of the government, and therefore, any statistical information I might have attempted to glean respecting its finance, commerce, &c., would not be obtained, or at least relied upon for its authenticity.

The exports from Grenada chiefly consisting of indigo, hides, and Brazil wood, are conveyed in bongos down the Rio San Juan to the settlement of that name, where they are deposited in warehouses, or transhipped as often as opportunities offer to Jamaica, New York, and other places. At present a Genoese vessel is waiting at San Juan for a cargo of indigo. Coffee, cocoa, sugar, mize, sesamum, &c., are cultivated

in the vicinity of this town, but not in sufficient surplus quantity to constitute articles of commerce, although in days of Spanish dominion they were all exported.

The nearest mines are in the district of Segovia, distant about forty leagues from Grenada. Of their operations I had no time or opportunity to learn any particulars. The regular troops are I am told few, and badly equipped,—the militia more numerous, but as may be supposed still worse appointed, continually employed skirmishing about the country in this endless war of independence. They are seldom quartered for any length of time in one place; at present there is not a soldier to be seen in the town of Grenada, and all its military defences (if it ever had any,) are completely abandoned and gone to decay. The old semicircular battery on the landing place might as well be called by any other name, for it does not contain a single piece of ordnance of any description.

Of the ecclesiastical establishment, I know nothing more than that there are five Catholic churches in this town, formerly in the care of Franciscan Friars, but now under the pastoral care of rudely educated coloured men, who for want of a bishop of their own, are ordained by some episcopal authority in Carthagena. There was once a bishopric, but now there is not one in the whole republic. All the lands belonging to the convents prior to the revolution, are at present in the possession of the government, and distributed as the government thinks proper. The only existing nunnery is at Guatemala. Realejo is the only good harbour on this side of the isthmus, capable I am told of admitting vessels of considerable size and numbers, and might in the event of a better communication with San Juan, and a more peaceable state of this distracted country, become a place of great commercial importance, but its distance from Grenada being about fifty leagues, is a serious objection. The nearest part of the Pacific Ocean to Grenada is a small bay called Laceres, where there is neither anchorage nor settlement,—one day's journey across the country.

Leon, the capital of the state of Nicaragua, is distant from Grenada about forty leagues, and four leagues from the shore of Lake Managua, inhabited chiefly, if not altogether by coloured people, who bear a notoriously bad character. This lake is about sixteen leagues long, thirty-five in circumference, from twelve to fifteen in width; in depth not so great as that of Grenada, and its level is said to be twenty-eight feet three inches above the latter; its nearest approach to the Pacific is ten leagues in a direct line. According to Mr. Bailey, I understood Captain Belcher visited this part of the country about eighteen months or two years ago; his information will of course be more authentic.

On the road to Leon, about three leagues from the town of Grenada there is a remarkable brackish pond called Apoyo, apparently contained in the crater of an extinct volcano, which does not ebb or flow, and is not sensibly diminished by evaporation. In the vicinity of Massaya there is also a small fresh water lake; they are both, no doubt, the result of volcanic agency by which this part of the isthmus has often been violently convulsed.

The Lake of Grenada, or Nicaragua, is connected with that of Leon or Managua, by the river Panaloya, which according to Mr. Bailey's survey has its entrance into the former in latitude 12° 10′ N., longitude 85° 50′ W., bearing N. 25° E. (true) from the battery of Grenada, from which it is distant fifteen miles and a half; its exit from the latter, or Lake Leon, is in latitude 12° 15′ N., and 86° 3½′ W. longitude.

This communication between the two lakes, which in Roberts' Narrative is asserted to be effectually shut up by an effusion of lava, varies in its width from twenty-five to one hundred fathoms, and has a depth of from three to eighteen feet in the navigable parts of it. Mr. Bailey makes it eighteen miles long, including all its windings, but as the distances in his survey of San Juan were found to be rather short, I think we may fairly allow an additional mile or two, making its actual length inclusive of all sinuosities, to be twenty miles.

It is navigable for canoes as far as the village Pasquel, situated three miles and a half from the Lake Leon, beyond which for the distance of nearly a mile the channel is so superficially imbedded by a stratum or ledge of rocks, that in the dry season the stream is confined to a few water-worn fissures; but after a continuance of rain, the channel is overflowed, and the water rushes over the rocks with great impetuosity.

Near the village of Tipitapa, not far from Lake Leon, there is also a fall of nearly thirteen feet, so that if ever a navigable communication is to be effected between these two lakes, this part of the Panaloya is not available in its present state. Adjacent to it there are several settlements.

Viewing these lakes as the grand reservoirs of numerous mountain torrents, and rivulets, from which the river San Juan is the only outlet, it must necessarily happen that their depths will vary with the change of season; accordingly we find by Mr. Bailey's registration that there is a difference of six feet six inches in the depth of Lake Nicaragua between the wet and dry season, but of course this is not invariably the same.

The evaporation over an area of nearly 3,150 square miles, where the temperature ranges throughout the year between 75° and 90°, in conjunction with the continual efflux by the river, will effectually keep in check any extraordinary overflow, and must be taken into account in making a pluviometric calculation. Before leaving Grenada I must again express my thanks for the attention we received from Mr. Bailey, and his friends. To him I am chiefly indebted for the little information I have been able to pick up, and only regret that our stay had not been longer.

*Tuesday* 17*th*.—At daylight we roused the Ramas, who were looking very stupid after their debauch, launched the canoe, and paddled to the Isletas,—a group of islands lying off Grenada, which appear to have been thrown up by some violent eruption, as indicated by the immense detached blocks, rent and huddled together in the wildest dis-

order. But whatever may have been their origin they now present a most beautiful picturesque appearance, ornamented with many graceful trees growing in the interstices of the rocks, and overrun in all directions with luxuriant vegetation.

The high hill of Grenada towering over these islets, by which we were land-locked on every side, produced a striking effect. We landed to breakfast on one of the most inviting of them, where we saw, as on most of the others, a solitary resident. We then threaded our way through this labyrinth of islands, and steered for the south end of Zapatero with a moderate, but short unpleasant sea; and sounded as we went, in six and nine fathoms.

At noon we stopped, being prevented proceeding to Nicaragua by the wind, which was blowing fresh, and dead against us; but at 5 P.M. the wind having moderated, we again embarked, and steered close under the western shore of Zapatero, where it is high and thickly wooded. The island is not inhabited, but in the season it is visited by the people of Grenada for the convenience of fishing. Its western hill is bare and barren, having recently been cleared away by an accidental fire: its geological aspect resembles that of the Isletas.

At sunset we passed between this island, which is distant from the main about a mile, and entirely composed of stratified rock, dipping at an inclination of 15° to 20° from the horizon, thickly overgrown, and at present visited by a few fishermen. A plain seems to extend across the isthmus from the south side of the Grenada mountains as far as the eye can reach, and the island of Zapatero, forms with the main, an excellent harbour.

*Wednesday* 18*th*.—At 5h. A.M. we launched, and steered along shore for the road of Nicaragua, against a short chopping sea, which made us very wet and uncomfortable. I was rather surprised to find in a lake where the prevailing winds at north and north-east are seldom very strong, how soon its surface becomes ruffled; such, however, we experienced to a degree that not only incommoded us, but often threatened our little vessel with no small danger: the padrone told us in crossing from Muerta to Grenada, that in all his trips in large bongos he had never before steered that course, but always kept close under the lee of the north shore: we for the sake of expedition preferred the former, as being the most direct.

The coast eastward of the Zapetero channel is low, with a straight line of beach, where the average height of the trees may be about seventy feet, and the soil appears to be most prolific. The soundings since we left Tahaja were from 5 to 6 fathoms.

At 9h. A.M. we passed Palmata Point, at the distance of about a quarter of a mile, and in the course of half an hour more landed on Nicaragua beach, and sent the padrone to town for horses, in order that we might lose no time in waiting upon the authorities.

This beach is composed of disintegrated quartz and argillaceous earth, straight, and lined with trees of fifty and sixty feet high, completely intercepting the view of the town, which is only about three and a half

or four miles off. Here as at Grenada, we saw lots of "lavanderas" washing clothes.

By the time we had obtained our sights, Pedro, the padrone, had returned with a couple of horses, on which Mr. Scott and I mounted forthwith, to pay our respects to the Gefè Politico, not forgetting to take with us our letters of introduction to Senors Ruis and Mongalo. After an hour's ride up a very gradual ascent where the road is tolerably good, and hedged in on both sides by a penguin (Bromelia) fence, we reached the town, and first called at the house of the former, but finding him absent on an excursion to the Pacific, we waited upon the other, who received us with the greatest politeness, and at our request took us to the chief official, whom we met, not in his own house, but in a neighbouring shop, dressed in anything but the garb of so high a functionary.

Through Senor Mongalo, I stated to him the object of our visit, and requested permission to cross over to the Pacific, at which he appeared to be highly flattered, and without a moment's hesitation, replied, "that we were at liberty to go where we pleased, and make what observations we thought proper." Delighted with this courteous reception we took our leave, and after requesting our worthy interpreter to furnish us with horses and a guide, all ready equipped by 10 o'clock next morning, we returned to our lodging on the beach. Before we retired to rest, we got the altitude of three stars north of the zenith, the same we observed at Grenada, which gave the difference of latitude 28′ 26″ S.

*Thursday* 19*th*.—At daylight the weather was fine, and wind E.S.E., when I observed for the true bearing Ometape (the result being N. 62° 17′ E.) At 9h. 30m. A.M. our mules arrived, not velocipedes, but we afterwards found them very sure-footed animals: the saddles of uncouth shape and rude material, but with the aid of a sheep's skin thrown over all they were soft enough, and rather too comfortably warm! Our guide presented a grotesque figure, rigged out in a party-coloured jacket of the gayest colours, great jack-boots with spurs, and stirrups of most whimsical make, and unreasonable dimensions.

After completing all our preparations, we took our departure from the beach, slowly wending our way towards the town of Nicaragua; on the road to which, I observe there are several houses constituting a scattered village, where there is a church named St. George. The town of Nicaragua stands upon an elevation of about one hundred feet above the level of the lake; its houses, similar to those of Grenada, are all of one story: those formerly belonging to the old Spaniards are substantially built of stone with capacious door-ways, and gloomy grated windows; the more modern ones of lighter material and construction; in fact, many of them are little better than mud huts. I saw but two churches, the largest of which is situated in the square opposite the guard-house, but neither have any pretensions to grandeur. The town of Nicaragua is said to contain 6,000 souls, all of whom are a mixed race of Spaniards and Indians, to the utter exclusion of whites. For

the first three miles the road is tolerably good, and the land partially cleared, with here and there a house to enliven the scene, but all beyond is a wilderness: the soil appeared, parched and indicated a long absence of rain.

At noon we came to a small stream. Here we discovered that our only weapon of defence, a pistol, which Mr. Scott had lashed to the pummel of his saddle was missing, but as time to us was of more importance than powder and shot, we left it behind, trusting that it might cast up on our way back.

Proceeding at a slow and steady pace, we rode through a forest of lofty trees thickly interwoven with gigantic creepers and spindendral plants, which appeared to be almost impenetrable on both sides of the road. The silence of the woods was only disturbed by the occasional discordant scream of a maccaw or parrot. At length we emerged from this agreeable "contiguity of shade," and came to a plain covered with short grass, and studded with clumps of calabash trees, (the *crescentia*) where we surprised a few deer. Here at times we had a good view of the peaks of Ometape and Madeira, towering over the trees and producing a very fine effect. The country through which we rode was one continued Savanna, and only wants a decent road to make it very agreeable; but owing to the deep fissures, caused by a long continuance of dry weather under a powerful sun, we found some difficulty to get along without stumbling.

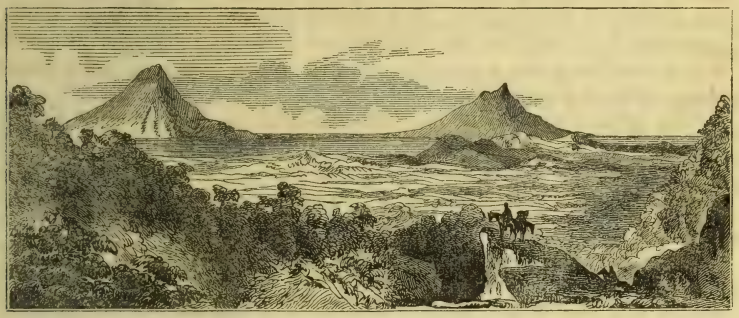
The ground gaping for moisture reminded us that we were thirsty, and our sapient guide, no doubt sympathising with our feelings, readily understood us, when we directed him to take us to the nearest spring, which after going two miles out of our way, we had the mortification to find was completely dried up, and we had to retrace our steps. His stupidity in taking us thus far became too apparent, when we found that we were within the same distance of a farm-house or cattle pen, called Quocoti, where we shortly afterwards arrived, and drank our fill of delicious milk and water.

Resuming our course which now lay over a rugged plain, where the path could hardly be distinguished, our hopeful guide became so perplexed, that after "backing and filling" a few times, he candidly confessed that he was at a *ne plus ultra*, and pleaded as an excuse that he had not travelled across the isthmus "*por muchos anos.*" With the assistance of Scott's Spanish we explained to him that it would be prudent to return to the farm-house, in which opinion he appeared to acquiesce, but had some secret misgivings whether he should be able to find it. In this dilemma we consulted the compass, and after a deal of traverse sailing, at length managed to hit upon a path which led to the house, where we were greeted by the inmates with a hearty laugh, our guide looking very sheepish and ashamed at being the cause of it.

The day being now far advanced, and our journey not more than half complete, the end of which I was anxious to accomplish before dark, we thought it advisable, instead of blundering along after this stupid

fellow, who had already served us so many tricks, to engage another guide. The only one we could find at this place was a fine little boy, who volunteered to conduct us to Port San Juan, if his father, who seemed reluctant, would allow him to go. After some persuasion, expressed as well as our imperfect knowledge of the language would allow, we gained the paternal consent, on condition that we brought him back the following day, and for his services all he demanded was six reals, equal to three shillings.

Led on by our Muchacho, we again pursued the uneven tenor of our way, at a brisk pace, our quondam guide bringing up the rear at such a distance that we were often obliged to "heave to" for him, much to our annoyance, but to the great amusement of the young one. In the course of half an hour's ride the road began to be more rugged, leading over and between very steep hills, so much so, that had our mules not been very sure-footed animals, and used to such travelling, our necks would certainly have been endangered in crossing the mountain passes, where the road was almost blocked up by the fallen trees, rocks, &c.

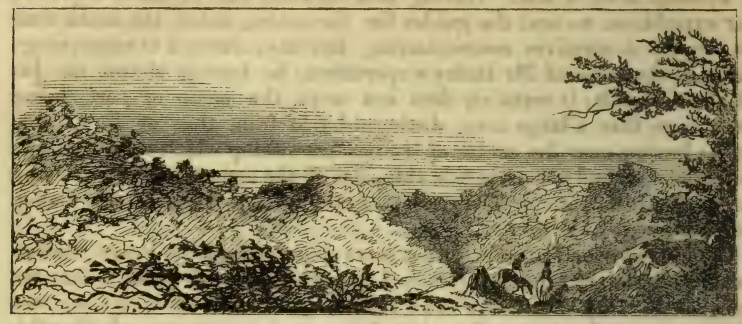


*The Lake, &c., from the summit of the Mountain on the Road from Nicaragua to San Juan, Pacific. Ometape Peak N.* 39° ½ *E. mag.* 19 *miles. Madeira Peak N.* 61° 50′ *E. mag.* 21½ *miles.*

These mountains are all thickly wooded, but not much overgrown with bush. From the summit of one more clear than the rest, whose height I roughly estimated at 800 feet, we had a delightful view of the Pacific to the westward, distant in a direct line about three miles, and the peaks of Ometape and Madeira rising out of the lake to the eastward.

The range of hills to the southward are, I should think, two or three hundred feet higher than this. Here we saw monkeys in plenty of the Coaita or Ateles species, exhibiting feats of agility far surpassing anything I ever saw performed by those of the old world; their long, powerful, prehensile tails enabling them to make the most astonishing leaps from branch to branch, and to hang suspended while they chattered to us with almost human expression. A few wild cattle and deer

occasionally came across our path, the former looking defiance, the latter no sooner seen than off.



*Sketch of the Pacific, &c., from the summit, S. Juan 3½ miles. El Cacola 3 miles.*

Having rested our mules, we descended by an abrupt and rugged path, and then threaded our way through the vale of Volgo, along the beds of dried-up mountain torrents, one of which our little guide called the Rio Volgo.

At 6h. 15m. we found ourselves all at once on the shores of the Pacific, in a little cove called El Cacola, where we found nothing in the shape of human habitation, but fell in with a gang of fishermen and a few women, from whom we got a drink of water, but for want of sufficient knowledge of their language, gained no information. The beach in this cove is entirely composed of pulverised sand-stone *without a trace of iron.*

Here we would gladly have remained for the night, ourselves and mules were so knocked up, but the youngster having found out his mistake, told us that we had still another league to travel; accordingly we again mounted, and after another hour's ride through a gloomy wood, at last reached Port San Juan, the ultima thule of our journey, after having been more than nine hours on horseback. The people of Nicaragua say the distance is only seven leagues, but taking into account all our deviations, we may fairly say that we had travelled three miles over as bad a road as ever was trodden by man or beast.

Having been informed that people occasionally resorted to this place for change of air and sea bathing, we expected to have found a few huts near the beach, but we saw nothing of the kind, and the only human being we met with was an old fisherman, who gave us a scanty supply of water. On the way however from El Cacola, we saw the glimmering of lights at a distance, and may, therefore infer that there is a village in the vicinity.

In the course of the night we were enabled to get three excellent single sights on each side of the meridian, the mean of which we subsequently found gave a very satisfactory result. We also obtained the latitude by difference of altitude, making this place 11° 46′ south of

Nicaragua; but all our endeavours to obtain equal altitudes were frustrated by the impossibility to set the instrument for want of a good light.

*Friday*, 20*th*, 4 A.M. Having now obtained the ultimate object of our expedition, we sent the guides for the mules, and in the mean time we employed ourselves reconnoitering this bay, which I at once recognized as the scene of Mr Bailey's operations, he having shewn me his plan at Grenada; it certainly does not merit the name of port, being little more than a large cove, distinguishable from that of El Cacola, by its having near the centre of the beach a swamp which communicates with the sea; and when the tide ebbs, has all the appearance of a running stream of fresh water. The rise and fall of tide is, I think, Mr. Bailey told me about twelve feet.

Mr. Bailey's levelling operations were commenced from Puerto de San Juan, and carried across to Rio de Lacas, the result of which makes the lake 128 feet 3 inches above the Pacific; the summit level 126, and the distance across fourteen miles; but, I cannot at present say whether this is the distance in a direct line between the two extreme points of his level, or the actual distance measured in levelling. I am rather inclined to think it is the latter. In this undertaking he was employed by the Government of Central America, and had many difficulties to contend with: he commenced in January with thirty labourers to clear the way, and it took him four months to complete his work.

At 5 A.M. we mounted, and at first felt very much shaken from yesterday's ride. Retracing the path by which we came, nothing worthy of remark occurred, and in the course of four hours we again found ourselves on the summit of the mountain from which we first got a glimpse of the Pacific, and now we took a last retrospective glance before we descended towards Gocoti, where we arrived at 11 A.M., and restored our faithful little guide to his padre. After resting our mules and refreshing ourselves, we shaped a course for Nicaragua, but had not gone far before we again found ourselves bewildered, and were just about to bear up again when our young friend came to our timely relief, he wishing to accompany us to town. Within the last mile or two from town our lost pistol was restored to us by a woman near whose house it had fallen and been picked up. I mention this circumstance to shew that, bad as the people of this country are represented to be, this, at least, is an instance of honesty rarely to be met with, even among our own country people, and it was much enhanced by her reluctance to accept a reward, evidently shewing that she expected none.

Without stopping at the town we hastened to the beach as fast as our jaded nags would carry us, where we arrived at 2h. 30m. P.M. and found all well.

*Saturday* 21*st*.—Still blowing very fresh at S.E.b.E. Got sights A.M. for equal altitudes, and sent the padrone to purchase beef for salting. At noon, compared chronometers and found they had been going very regularly since we came to this place; but they appeared to have altered their rates since leaving Grenada. In the afternoon got corresponding sights; wind still continuing to blow hard from the same quarter, and

so much surf on the beach that we found it impracticable to launch our canoe.

In the evening of the 21st, we were invited to visit a settlement, near Palmarta Point, where Mr. Scott's mechanical skill in shewing them how to repair a pump belonging to the estate gained him great applause, of which we all reaped the benefit; for, by way of return for the services he had rendered, they invited us to take up our abode with them, and sent us a bag of fruit and a fine fat ready roasted duck!

Our Ramas all along have behaved extremely well; notwithstanding their ruling passion for grog, they never once were untractable, nor took an unlicensed liberty with our stores.

*Monday 23rd.*—At 11h. 30m. A.M. the wind having a little moderated we launched our canoe and paddled across to the island of Ometape, carrying a depth of five and seven fathoms. At 3 P.M. we landed, the wind coming round to the east.

The south side of this island is thickly wooded, excepting here and there where a few small plantations appear like so many oases in the wilderness, or forest. On the north side there is, I am informed, an Indian village, containing between 200 to 300 huts, where beautiful mats are manufactured out of grass.

At 6 P.M. we again embarked, paddled to the south point of Ometape. The shore, along which we passed, is bold and craggy in some parts, in others low and gently declivitous. Here we remained for the night under the lee of the island, wind blowing in heavy gusts.

*Tuesday 24th.*—At 4 A.M. started, continuing our course towards Madeira. Here we discovered that Ometape and Madeira, which at a distance appear to be distinct islands, are connected by a low woody neck of land, about forty or fifty feet high. The latter mountain is thickly wooded to its summit, and in some parts intersected with ravines and cataracts.

At 7h. 30m. we landed on the south-west part of Madeira where we found a German, named Oraldo Wormger, had settled with his wife and family. They had lately come from the United States with a view of forming a cotton plantation: he appeared to be very sanguine of success, informing us that, although he had been there only two months, was getting on extremely well; his land amounted to 5,000 acres he had purchased from the local government of Nicaragua, at the rate of half a dollar an acre, which, after all incidental expenses were paid, would cost nearly as much as land in North America. The delay in getting it surveyed before he could take possession had, he said, been a great source of vexation and expense.

The huts in which this enterprising family had taken up their abode, are made of bamboos and wild cane, fixed perpendicularly into the ground and roofed by a kind of palmetto, neat, airy, and comfortable enough in fine weather, but in the rainy season I should think hardly weather-tight; but, should he succeed to his expectations, he told us, he intended to remove his dwelling, and build a more substantial house near a cascade, (a short distance from this), for the convenience of its

falling waters, which he thinks he can make subservient to his cotton gin and other domestic purposes.

At noon the wind having nearly died away and the sea gone down, we again shoved off, paddling towards the south shore, and carrying a depth of ten and nine fathoms. At 4h. 30m. we were off the Tortugas shore, and 5h. 30m. landed at the village of that name, consisting of only six or seven huts, inhabited by fishermen, &c. We saw the smoke of Beiga, an active volcano issuing apparently not from its highest peak, but from an elevation on the side of it.

The aspect of the northern shores of the lake is strikingly contrasted with that of the north side, where all is clear Savanna land; here it is densely wooded as far as the eye can reach.

From the composition of the bottom and beaches of this lake, which are both more or less impregnated with iron, one would have expected to find this water slightly chalybeate; but owing, I presume, to the metal not being in an oxidised state, nor associated with carbonic or sulphuric acid, it is not soluble: little, however, is known of the chemical operations of nature in the synthesis of mineral waters.

At 1h. 30m. P.M., we were abreast of Maccaroon, the western extreme of the Solentiname group, which we had a good opportunity of examining as we passed: their geological features do not differ materially from those of the other islands, and they are completely overgrown with the most luxuriant vegetation, resembling that of Corn Island: they are all inhabited by numerous families, and produce abundance of stock of all kinds.

At 6h. P.M. took our last departure and bade adieu to this inland sea, our course now being directed to its outlet: passed close to the eastward of the Bocas Cays where the depth is about two fathoms; and at 10h. P.M. anchored off San Carlos where we remained for the night. Weather threatening; lightning in the horizon.

*Thursday 26th.*—At 2 A.M. we were awoke by a heavy squall from the north-east with torrents of rain.

Shortly after leaving San Carlos we met three bongos, and were informed by one of them, that H.M.S. *Thunder*, had just arrived at the Boca de San Juan. Continued our course till midnight when we anchored in the middle of the stream, about three miles above the Toro rapid: mosquitos murdered sleep.

*Friday 27th.*—Away at dawn of day when the sky was overcast and a shower of rain fell, wind easterly; paddling with the stream so much in our favour, that by 5h. 30m. A.M. we had passed the Toro rapid, and at 8h. safely descended that of Castillo Viejo, in neither of which did we experience the slightest difficulty or disaster, by keeping to the northern side. The time occupied in descending the latter was not more than one minute and a half.

At 9h. A.M. we dashed down the river in great style, but more cautiously took the Machuca, which is considered by the padrones the most dangerous of all the rapids, on account of the tortuous course and the many rocks which lie superficially concealed in its bed. They

never attempt to pull the bongos over it but always ease them down by means of a rope. We, however, by keeping good way on the canoe and skilful steerage, managed to shoot it without any inconvenience or danger. I must here alter my opinion respecting this rapid, and confess that it well deserves the name, although insignificant in its ascent. The Castillo Viejo rapid is the most formidable and imposing to look at, but being straight and clear of shallow rocks, there is not much danger of capsizing so long as you keep well on the northern bank and "give way."

At 9h. 50m. A.M. we landed to breakfast on the Isla Campana. The river had fallen at least one foot and a half since we went up, and the stream did not run quite so fast. The padrone said that it would fall one foot and a half more than at present. After May, when it is at its lowest, it begins to rise again, and in October generally, attains its greatest depth. Hence I should think, that the best time to commence levelling would be about the middle of March, or beginning of April. Mr. Bailey, if again employed by the government of Central America, to level between the lake and the Atlantic, *via* this river, intends to lay artificial foundations on its banks by means of planks, six feet by three. In the rainy season when the river is most swollen, and the stream is not too strong, it takes the best bongos from fourteen or fifteen days to go from San Juan to San Carlos.

The largest of these rude vessels, hewn out of immense trunks of trees, carry thirteen hands, including the captain or padrone, and are about five or six tons burden. On their passage to Grenada they never take a full cargo, but on their return they are generally deeply laden, on account of the stream and rapids which must oppose a greater resistance to a heavy body, and for other obvious reasons.

At 10h. 30m. A.M. we took our leave of Campana, and paddled down the stream as fast as our brave Indians could apply their brawny arms, and by way of encouragement we gave them an extra allowance of grog, which seemed to infuse fresh vigour. We were frequently drenched by heavy showers which fell during the day. At 3h. 30m. landed to dine on a dry sandy-spit, where we remained about an hour, and then resumed our course down the river, heavy showers still falling. And at 7h. 30m. brought up for the night at San Francisco, where we contrived to get our clothes dried.

*Saturday* 28*th.*—Started at 4h. A.M.,—sky cloudy,—paddling down the river at a great rate. Passed the river Serapequi at 6 A.M., and at 9h. landed to breakfast on the Colorado Island. Found the river very shallow and the stream not so rapid. At 10h. 30m. proceeded, and found the river getting so shallow that the Indians were obliged to jump out and haul the canoe over several bars of sand. The padrone said, that the bongos in the dry season are often obliged to leave half their cargoes at Colorado, before they can get over the shallows which obstruct this part of the river, and even then the difficulty is so great that it sometimes takes them eleven days to get down to San Juan, digging a channel as they advance. At noon we were

abreast of Juanillo Point, where the river takes a remarkable turn, running off at right angles and parallel with the coast, as if this had once been its termination, which by the same process of fluviatile deposit now going on before our eyes at its present outlet, has been blocked up and the stream diverted into a new channel: the land intervening between this part of the river and the sea coast is a complete delta, the result of alluvial accumulation, and would seem to countenance this opinion.

With respect to the capabilities of this river as we now find it, I think it might be considerably deepened, and many obstructions removed by shutting the mouth of the Colorado branch. As to the rapids it would be ruin to attempt their removal, but they might be avoided by a canal.

Such improvements, however, can never be thought of in the present revolutionary state of this country. For all its commercial purposes the river is sufficiently navigable, and its bongos quite big enough.

At 2h. P.M. we passed the Pauro branch, at 3h. the lower mouth of the Juanillo, and at 4h. got on board the *Thunder*, in San Juan harbour.

---

## Arctic Amusements.

[While our adventurous seamen who are now we trust snugly secured in their winter quarters somewhere in the neighbourhood of the Parry Islands, are preparing to beguile the long hours of a tedious winter, it may interest our own readers to see one of the means which they have established for this purpose. A newspaper, the produce of the officers. Many of our readers have heard of the "Cockpit Herald" and such other productions of former days in Her Majesty's Fleet:—Parry had his, and Capt. Ommaney the companion of Capt. Austin has the following weekly

### Aurora Borealis of H.M.S. Assistance.

*Baffin Bay, June* 1850.

It is pleasing for the human mind after the troubles, revolutions, and disturbances, which have of late years convulsed Europe, to dwell upon, and contemplate the workings of humanity, and more especially where evinced in favour of Sir John Franklin and his daring band of companions.

It is gratifying to find that, amid the many occurrences that daily interest and carry away the public mind, the voice of England has been raised for their rescue; and that money, capital, and other resources placed readily at the disposal of those in authority. Our expedition has been fitted out under the most favourable and most glowing auspices; few have ever left England with so many and such ardent blessings; the great, the good, the generous have blessed us, and a nation has cast forth its wishes for our success and happiness.

We cannot but prosper; each man buoyed up by the lamp of faith and anticipation, assisted by the guiding hand of Providence will do his best, the star of hope will light us onwards, and with energy and resignation will unfold one day the banner of success. Our hardships may be many, but with feelings such as now exist, these will be overcome and happiness be the sun,

" Where the North Pole in moody solitude,
Spreads her huge tracts and frozen wastes around."

which like a continual smile will hover over and around us.

The journal we have undertaken has been for the amusement of the officers and ship's company of H. M.S. *Assistance*, during the dark and dreary hours, when

" Mingling day and night [light
Sweet interchange which makes our labours
Will be unknown,"

and our sacred mission will not demand our services. It will amuse and instruct, and we hope it will be a bond to unite, and keep up a spirit which will, we trust, reign triumphant throughout, and cause our ship in after years, to be fondly and dearly remembered by the name of *The Happy and Jolly Assistance.*

---

### *The sunken land of Bus.*

On the 25th May, 1850, H.M.S. *Assistance* passed over that portion of the Atlantic, beneath which, the mysterious and sunken land of Bus lies: little did the sailor think as his ship ploughed the mighty waves, that here above these waters, a land full of happiness, of life, and vitality, once existed, rich in the feelings of the heart and prolific in the preciousness of its metals.

This land now no more, is mentioned by one of the two brothers Tein, (celebrated Venetian navigators,) who carried by a storm into the Deucaledonian sea, and after many hardships and troubles, was in 1380, wrecked upon a large and beautiful island, covered with a hundred towns and villages, and peopled by a race of christians primitive in the extreme, and enjoying a state of civilization far beyond expectation; he was hospitably and kindly received by Ziehmin, the prince of this fair land, who welcomed him, and advanced him in his favour and friendship; he lived here for some time in honour, accompanying this prince in many of his expeditions.

It was in this happy Atlemtis, that the wild and speculative minds of the Norsemen planted their lands of Colchis, a land abounding in gold, in silver, and precious stones; and from whence in spite of the opposition offered by the evil genii of the land, an armament in the time of King Olems, brought away cargoes of these valuable objects.

Over this sunken land it was, that the famous navigator Magnus Henningsen, sent by Frederick the II. in 1578, was arrested in his expedition to Greenland; for days he tried to push on, but his ships remained stationary in one spot, unable to move. Finding his endeavours of progressing fruitless, he was under the necessity of shifting his course homewards, and on his return, his excuse for his want of success was, that stopped by the magnetic powers of the sunken rock, which had for days held him spell bound to one spot, he considered it wrong to dare further the power of the demons of the deep.

Mystery hangs over this spot; whalers have wound around it a

charm pleasing to the imagination and seductive to the fancy; over it the waters unceasingly and constantly wash, and few seamen are hardy enough to trust themselves to the hidden dangers, and perils that surround it.

Some old mariners will tell you that on a fine night, with a fresh breeze blowing, a kind of light may be seen in the skies, resembling distant smoke arising from the waters, which like the "Ignis Fatuus," precedes the ship in her course, vanishing as distance decreases into thin and empty air: the decks of these ships the next day, will be found strewed with fine sparkling sand impalpable to the feel, and possessing qualities differing from sand generally.

As the ship dashed from its bows the mighty waves, that rushed against it in its passage over this land of mystery, the mind was lost in wondrous speculation, as to the cause or convulsion in nature, which could have swept away from the surface of the earth a land so large, so thickly populated, and so flourishing:—whether if once a floating island, such as is mentioned by old travellers, and fondly dwelt upon by their imaginative minds; or whether as the island of Labrinas, or in later years Hotham Island, a volcano raised by some submarine force, and returning to its original position on the abstraction of this power,—a column uplifted by the genii of the deep, exhibiting its capital above the waste of waters for a time, to the wondrous eyes of mortal man.

---

*Ruin of a Greenland Colony.*

There is perhaps nothing that arrests the attention of the traveller sooner, than the ruins of an ancient city, or the crumbling remains of an old castle or temple. The mind unconsciously flies back to those times, when the city or castle which is now deserted, was once thronged with men who have been long since dead, and when their lofty walls and towers, echoed with the stirring noise of the crowds beneath.

Most of us who are now leaving the civilized world far behind, and entering the regions of eternal snow and solitude, have but lately returned, either from where the marble temples and palaces of Greece and Italy, throw their shadows over the blue waters of the Mediterranean, or from some other region equally interesting for its antiquities; and we have all perhaps in whatever station our sojourn may have been, indulged our minds in many a delightful reverie as we gazed on the ruined temples and monuments of by-gone ages, which are to be met with in every part of the world.

The land which we have now entered upon, is not entirely destitute of such interesting remains; and the broken pillars, bells and urns, attest the former magnificence of the cathedral of Garda.

The flourishing colony of Eiriksfjord, situated not far from Cape Farewell, was in the beginning of the fifteenth century, the seat of a bishopric and a cathedral. Founded by the Norwegians Eirek, it had gradually increased in size and opulence until it had arrived in A.D. 1400 at a high state of prosperity.

It was about this time that the impious Kajah Tahmasp, grandson of Shiebam Khan, the conqueror of Siberia, and decendent of the famous Genghiz Khan, was obliged

with a chosen band of followers to fly his country, and seek new fortunes in the frozen lands of Kamtschatka. After defeating several tribes on the banks of the Ohi and Yenessei, they crossed Bhering's Straits and being joined by several thousand Esquimaux, and after suffering incredible hardships, arrived on the coast of Labrador A.D. 1399.

Here they received tidings of the rich colony of Eireksfjord and the bloodthirsty Kajah Tahmasp determined on its destruction.

At that time the venerable Rolfo, Bishop of Garda, had ruled the destinies of the colony for more than thirty years. He had lived to see all his friends die around him, and his only grandchild, the lovely Ingeborga, was the solace of his old age. The old man received the news of the intended invasion with Christian resignation: he prepared for the defence of the town, and sent his grandchild in a small vessel to Denmark in charge of her lover, the youthful Frithiof. They had hardly however left the harbour when the hostile fleet rounded Cape Desolation and commenced the chase. The little vessel was soon overtaken, and the ferocious Kajah Tahmasp murdered the lovers in each other's arms. The town was soon afterwards taken, every soul put to death, and the venerable Rolfo, fell dead under the blows of the infidels at the foot of the altar. The conquerors however soon quarrelled concerning the sharing of the spoil, and the blood of Rolfo was avenged by the murder of Kajah Tahmasp.

Not a vestige is now to be discovered, beyond a few broken pillars, bells and jars of the once flourishing city of Garda. Like Babylon, Memphis and Gomorrah, it has disappeared from the face of the earth, and left only its name and a few scattered facts to be collected by the indefatigable perseverance of Danish antiquaries.

---

*Q.* What insect that Noah had with him, were these regions named after?

*A.* The Arc tic. (Arctic.)

---

The outpourings of a Yankee lovers's devotion to his mistress—a hint to the seven bellars of the

### *Arctic Expedition.*

I sings her praize in poetry
From morning until eve,
I cries whole pints of bitter tears
And vipes 'em away with my sleeve.

---

### SONG.

Jog her out, jog her out,
Come what are you about;
Jog her out, jog her out,
For our spell is nearly out.
If old Rice ware only here
He'd help us to a cheer,
Or what would still be better
He'd treat us all to beer.

We've jogged her each morning,
And we've jogged her each night,
And now we're jogging her
With all our main and might,
The leak it is increasing,
Our work it is unceasing,
And I'm sure before she's dry,
We shall all be fagged out.

Vast heaving, vast heaving,
For the pumps begin to suck,
Vast heaving, vast heaving,
We've jogged her out enough,
She'll run another day
Only give to her fair play,
So at the work don't growl
For we're getting double pay.

---

### ACROSTIC.

I n the gloomy despair of a long Arctic night
N ear the haunts where polar bears roam
T he heroes whom England had lost to her sight,
R epine for their country and home,
E v'ry hope that had tended their sorrows to mend
P ass like dreams with the long years away
I s their sorrow, their hope and their life thus to end,
D oes not England their worst fears allay?

A y! Assistance does come with speedy relief,
S oon their sorrows and fears to dispel,
S ad, but few are the days they will sojourn in grief,
I n despondency nothing can quell,
S uch are our hopes for the best,
T he Assistance for friendship and mercy has sailed,
A ll on board her being bent on success,
N o obstacles daunting, all dangers assail'd,
C asting comforts aside to suffer distress,
E v'ry eye being turned to the West.

### *The Mullemukke.*

The sea bird which we have most frequently seen around the ship in her passage across the Atlantic has been the Fulmar, the Procellaria glacialis of Linnæus, the Havest of of the Norwegians and Mullemukke of the Greenlanders, which in their language signifies the *stupid fly*, from its motions being quiet and heavy, and flying as some have compared it to a large moth, stupidly and noiselessly. It is said to be so voracious that where food is plentiful it will gorge itself until obliged to vomit what it has taken, when it will again return and glut itself; so greedy are they that whilst a whale is flensing alongside they may be knocked down with sticks, rather than move from their prey.

On the banks of Newfoundland, where this bird is known by the name of John Down, it attends the the fishing vessels for the offal of the codfish. Whalers tell you they can trace the finner (Baleana Physalis,) by the hoverings of this bird, which pounces upon the Leviathan of the deep as he rises to blow.

At St. Kilda, one of the western islands of Scotland, they are found in great numbers; they deposit their eggs on ledges of rock inaccessible to the foot of man. "These birds" says Pennant, "are of much use to these islanders, they supply them with oil for their lamps, down for their beds, a delicacy for their tables, a balm for their wounds, and a medicine for their distempers."

They are eaten by the whalers, and by the inhabitants of Hudson and Baffin Bay, who salt them for winter provisions.

From the listlessness of their flight, they have been considered to be the birds of Diomedes, for a melancholy hovers about them, as they progress through the air.

### Acrostic.

S ince other efforts have been vain,
I ce barriers to evade,
R esolved! No dangers shall restrain

J oint search for Franklin's aid.

F or Franklin's sake we'll brave the fates,
R elease his ships and crew,
A nd bring him home through Bhering's Straits,
N o other way will do!
K ind friends our safe return will hail
L ong absent from their care,
I n joy we'll spread our homeward sail;
N ew destinies to dare.

Honorificabilitudinitus.

The following epistolary specimen, was found in *Editor's Box.*

My dear Sur,

My George which is in this exhibition was alway for never in the last, a looking at Aroro Borehalieo which i am credibitaly hinformed niver shows out a day times. Now who the himpertinent hussi his i should like to know, she cant be no good leastweighs, looking arter married men in those could parts, more in partikler by star lite, in opes you may publish this, that he may know i've my i on him.

Sairey.

"*To the Editor of the Aurora Borealis,*"

Sir,

Having heard from an Arctic voyager, that he has seen "crows nests" in those icy regions, I beg

to enquire through your columns if they are built by the crows (corvus tintinnabulus) which Goodsir states to utter a metallic bell-like croak! My fast friend begs me to enquire when rook shooting commences in those diggings.

A NATURALIST.

We would recommend to a Naturalist a visit to these "crow's nests" which do exist in the Arctic Regions; we would also advise his fast friend to investigate these said nests more thoroughly, he would then find them tenanted, by very old birds, (Ice Quarter-Masters,) who would not only inform him as to the species of Corvus and the sporting season, but would give them a fair chance of showing him how a pigeon may be plucked.

*Conundrum.*

Why is the sun shining on an ice-berg, like a fish with soft roe? Answers received will be published in our next.

---

## TURKISH FOR TARS, No. VII.—*By Mahmouz Effendi.*

(Continued from page 499.)

THE present paper concludes the "Geographical List" begun in the last number; and in connexion with it we may refer to the 18th volume of the *Nautical Magazine*, page 628, [A.D. 1849.] We have there given about a score of words indicating the Turkish for capes, heads, islands, lakes, plains, and so on; to which we now add a few other terms not to be found in the page alluded to.

| | |
|---|---|
| Oasis .. .....Vahat | Bank or shore .....Yaka |
| Anchorage.....Mersa | City.....Beldè |
| Bay or roadstead...Atchik-liman | Continent or land...Kara |
| Country or kingdom Memleket | Marsh.....Tchorak Yer |
| „ „ Vilaïet | Desert.....Sahra |
| Wood or Forest.... Orman | „ .....Yaban |
| „ „ Meshè | „ .....Tcheul |
| Road.....Yol | „ .....Issuzlik |
| Sea .....Denyz | Hill—Village.....Desmèrè |
| „ .....Bahr | River .....Nehr |
| Pass or Ford.....Guetchid | „ .....Djoui |
| Mole or quay.....Liman-bendi | Plain.....Yaz |

We now resume our List of Places.

| | |
|---|---|
| Marmora, Sea of ...Mermerè deniyzi | Mediterranean .....Itch denyz |
| Marmora, Lake*....Mermerè Gueuli | Melilla .....Velila |
| Marmora, Strait of Mermerè boghazi | Mesopotamia.....Djezirè |
| Marmora, Town of Mermerè shehri | Messina .....Mesinè |
| Marmora island....Mermerè adasi | Messina, port of ...Mesinè limani |
| Marmora cape.....Mermerè bouroun | „ .....Mesinè iskelési |
| Marmora roadstead Mermerè limani | Messina, strait of...Mesinè boghazi |
| Marmora lighthouse Mermerè feneri | Mexico .....Meshîkou |
| Marseilles .....Marsilia | Milo .....Milo adhasi |
| Mecca.....Beït-ul-haram | „ .....Buyuk-deirmenlik |
| „ .....Mekkè | Anti-milo.....Kutchuk deirmenlik |
| Medina, Arabia.....Medinet-ur-resoul | „ .....Deirmenlik |
| Medina, Spain.....Shidounet | Mingrelia.....Mekril |
| Mediterranean or | Mitylene .....Midillu |
| White Sea.....,...Ak denyz | Modena .....Mudun |

* This Lake or *Gueul* is situate between Thyatira and Sardis, behind Smyrna, and not in Marmora in the Sea of Marmora.

Modon .....Mutoun
Mogadore .....Souiret
Moldavia .....Kara iflak
„ .....Boghdan
„ .....Kara Boghdan [dis
Mole of Gallipoli....Guèliboli liman ben
Morea.....Mora djezirèsi
„ .....Mora vilaïeti
Morocco.....Maghreb vilaïeti
Mount Ararat .....Aghyr Dagh
„ .....Djoudi daghi
Mount Athos .....Aio Noros
Mount Balkan or Hæmus ..... } Balkan daghleri
Mount Sinai .....Thour dhaghy
Mount Olympus.....Anadholi dhaghi
„ „ .....Keshish dhaghi
Mouths of the Danube..... } Dhouna Boghazleri
Mudania, gulf of....Mudanié keurfuzi
Naplous .....Nabulus
Napoli di Malvasia Malveziè
Napoli di Romania Anaboli
Navarino.....Avarin
„ .....Anavarin
Naxos.....Naksha adasi
Negropont.....Aghriboz
„ .....Eïriboz
New Castle.....Yeni-hissar
New England.....Yeni Inguilterra
New Holland.....Yeni Nedirlanda
New London.....Yeni Londra
New Port .....Yeni Liman
New World.....Yeni Dunia
New York.....Yeni Yorka
Nesa (khorassan)...Kutchuk Sham
Nicaria.....Koz adasi
„ .....Nickaria
Nice.....Iznik
Nicomedia.....Iznikmid
„ .....Makedoun
Nicopolis.....Nikeboli
„ .....Inèboli
Nicosia.....Lafkousha
Nile.....Deriai Nil
Nissa (Servia).....Nish
Old Adalia.....Eski Adalia
Ocean.....Dish denyz*
„ .....Ghythamm
„ (Atlantic).....Bahri Mouhith
„ (Indian) .....Bahri hindi
„ (Pacific) .....Bahri sakin
Olympus, Mount ..... } *Vide*
Oran .....Heran
Orontes .....Nehr-ul-Orounth
„ .....Meimas
„ .....Nehri hamat
Oxus ..... ....Ab Amou
Padadonisia .....Papaz adasi
Palestine .....Filisthyn Iklimi
Palmyra.....Tedmur
Paros .....Parè adasi
Patmos .....Bathnos adasi
Pekin.....Khan balyk
Pera.....Beg Oglou
„ .....Dort yoly aghzy
Pergamus .....Bergamo
Persepolis.....Istykhar
Persia.....Adjemistan
Persian Gulf.....Basra Keurfuzi
„ .....Bahr-ul-Fars
Pest .....Peshtè
Philadelphia (Asia Minor) } Ala Shehr
Plain of Brusa .....Bursa ovasi
Poland.....Sarmaçia
„ .....Leh memleketi
Portugal.....Portoukal
Princes Isles .....Tekiour adaleri
Prussia.....Prousia [leket
„ .....Brandenburg mem-
Pruth river.....Prout Nehri
Rabbit Island.....Tavshan adasi
Ragusa ..... .....Dobrè Vendik
Red Sea .....Bahr-ul-Koulzoum
Rhine.....Rino Nehri
Rhyndacus.....Oulou-bad
Rhodes, Channel of, Rodos boghazi
Rhodes Island.....Rodos adasi
River Nile.....Nil Nehri
Rodosto .....Tekiour dhaghy
Rome .....Roma
Rosetta.....Reshid
Russia.....Rousiè
„ .....Muscov vilaïeti
„ .....Ourous
Salonica.....Selanik
Salonica, Gulf of ...Selanik Keurfuzi
Samos.....Samoz djezirèsi
„ .....Shamish
Samothraki.....Semendrek
Santa Maria.....Shentemeriiet
Santarem.....Shetirin
Sardinia.....Sardinia
Sardis† .....Sart
Satalia.....Adalia
„ .....Anthalia

* *Denyz* signifies *sea*; and *itch* means *interior*, or *internal*, or *in the heart of*, or *midland*; thus *itch denyz* is a mediterranean or inland sea [D.T.F. 1, 153, 533, 571,] and *dish* as well as another word, *tash*, [1, 275, 570,] signifies *exterior*, so that *dish denyz* means the *outside-sea*, the ocean, *dish* also means a *tooth*.

† The following is the geographical order of route to the Seven Churches

| | |
|---|---|
| Save (river) | Sava Nehri |
| Saxony | Saksonia memleketi |
| Scala Nuova | Koush adasi |
| Scio | Sakyz adasi |
| „ | Djeziret-ul-masthaky |
| Scio, Strait of | Sakyz boghazy |
| Scotland | Eskotchia |
| Scutari(Bosphorus) | Uskudar [riiesi |
| Scutari (Albania) | Arnaoud Iskende- |
| Semlin | Zemoun Shehri |
| „ | Zemin |
| Servia | Sherb |
| „ | Syrb |
| „ | Laz vilaieti |
| Seven Capes | Yedi bouroun |
| Seven Islands | Djezairi-Sebai mudjtemia |
| Siberia | Sibir ialèt |
| Sicily | Sitchilia |
| Sidon | Saida |
| Sinai | Thourè Tina |
| Sinope | Sinab |
| Spain | Ispania |
| Smyrna | Izmir |
| „ castle | Izmir hissari |
| „ city | Izmir shehri |
| „ gulf | Izmir keurfèzi |
| „ port of | Izmir iskelèsi |
| „ quay or explanade | Izmir yalisy |
| Stockholm | Istokolm |
| Susa | Sous |
| „ | Sousen |
| „ | Tushter |
| „ | Shushter |
| Sweden | Isvedj-memlèkèti |
| Switzerland | Helvetchia |
| „ | Isvitchera |
| „ | Suïs |
| Syria | Sham-vilaieti |
| Tangiers | Thandjet |
| Tangiers Bay | Thandjet limani |
| Tarsus | Tharsous |
| Tartary | Tataristan |
| „ | Permah |
| „ | Tatar memlekèti |
| Tauris | Tebriz |
| Taurus | Bakaret dhaghy |
| Thebes | Kous |
| Tenedos | Boghtcha adasi |
| „ | Bosja adasi |
| Tigris | El furanik |
| „ | Ervend |
| „ | Eravend |
| „ | Tildj |
| Thyatira | Ak-hissar |
| Tino | Istindil |
| Toledo | Thoulythelet |
| Transoxiana | Vera djeihoun |
| Transylvania | Erdel memleketi |
| Trebisonde | Tharabouzen |
| „ | Tharabezoun |
| Trieste | Trieste [gharb |
| Tripoli (Barbary) | Tharaboulousi- |
| „ (Syria) | Tharaboulousi-sham |
| Troy | Kadimi Troia |
| Truxillo | Thourdjelet |
| Tunis | Tounous |
| „ Regency of | Tunous odjaghy |
| Turkey | Diari Osmanian |
| Ukraine | Kazak vilaieti |
| Valley of Yemen | Vadi-ul-eimen |
| Varad (Hungary) | Varad |
| Varna | Varna |
| Venice | Venedik |
| „ Gulf of | Venedik Keurfezi |
| Venetian Islands | Venedik adhaleri |
| Vienna | Vetch shehri |
| Volga | Atil |
| „ | Velagha |
| Vonitza | Venitcha |
| Wallachia | Kara Vlakh |
| „ | Kara iflakh |
| „ | Iflak |
| Warsaw | Varshav |
| White Cliffs, in Dardanelles | Ak Yar |
| White Haven | Ak Liman |
| White Sea or Mediterranean | Ak denyz |
| „ | Bahri ebiaz |
| Windmill Island, *i.e.* Milo | Deirmen adasi |
| Xeres | Sherish |
| Zatmar (Hungary) | Zatmar |
| Zea, or Renegade isle | Murtedd adasi |

---

of Asia, starting from Smyrna, now a steam-packet station. The whole round amounts to 400 miles.

| | miles. |
|---|---|
| Smyrna to Pergamus | 60 |
| Pergamus to Thyatira | 50 |
| Thyatira to Sardis | 30 |
| Sardis to Philadelphia | 40 |
| Philadelphia to Laodicea | 55 |
| Laodicea to Ephesus | 120 |
| Ephesus to Smyrna | 45 |

*See* Arundell's Seven Churches of Asia; Knight's Oriental Outlines; and Usborne's Levant Guide, pp. 313, 321. For preparations for such a tour as this *vide* Sir Charles Fellows' Excursion in Asia Minor, p. 304.

THE MERCANTILE MARINE ACT.—*An Act for Improving the Condition of Masters, Mates, and Seamen, and Maintaining Discipline, in the Merchant Service.*—*14th August*, 1850.

(Concluded from page 520.)

*Right to Wages and Provisions.*

56. And be it enacted, that a seaman's right to wages and provisions shall be taken to commence either at the time at which he commences work or at the time specified in the agreement for his commencement of work or presence on board, whichever first happens: provided, that this enactment shall not prejudice the infliction of any lawful punishment, forfeiture, or fine; nor shall any seaman be entitled to wages for any period during which he refuses or neglects to work when required, whether before or after the time fixed by the agreement for his beginning work.

57. And be it enacted, that any seaman who has signed an agreement, and who is discharged before the commencement of the voyage, or before one month's wages are earned, without fault on his part justifying such discharge, and without his consent, shall be entitled to receive from the master or owner, in addition to any wages he may have earned, due compensation for the damage thereby caused to him not exceeding one month's wages, and may, on adducing such evidence as the justice hearing the case may deem satisfactory of his having been so improperly discharged as aforesaid, recover such compensation as if it were wages duly earned.

*Advance and Allotment of Wages.*

58. And be it enacted, that so much of the "Seamen's Protection Act" as relates to advance of wages and advance notes shall be repealed from the time when those parts of this act which relate to the same particulars come into operation, except as advances made and advance notes given before that time.

59. And be it enacted, that no advance note shall be made except in forms sanctioned by the Board of Trade, which are to contain blanks for the number of days within which the notes are to be made payable and such other blanks as may be necessary; and no such form shall be altered except by duly filling up the blanks therein; and no advance of wages shall be made or advance note given to any person but the seaman himself; and no advance of wages shall be made or advance note given unless the agreement contains a stipulation for the same and an accurate statement of the amount thereof; and no advance note shall be given to any seaman who signs the agreement before a shipping-master, except in the presence of such shipping-master, or, except in the case of a substitute, until four hours after the agreement has been so signed.

60. And be it enacted, that if any advance of wages is made or any advance note given to any seaman in any such manner as to constitute a breach of any of the above provisions, the wages of such seaman shall be recoverable by him as if no such advance had been made or promised; and in the case of any advance note so given, no person shall be sued thereon unless he was a party to such breach.

61. And be it enacted, that whenever any advance note is discounted for any seaman, such seaman shall sign or set his mark to a receipt endorsed on the note, stating the sum actually paid or accounted for to him by the person discounting the same; and such person may, after the expiration of ten days from the final departure of the ship from her last port of departure in the United Kingdom, sue for and recover the amount promised by the note,

with costs, either from the owner or from any agent who has drawn or authorised the drawing of such note, either in the county court or in the summary manner in which seamen are by the "General Merchant Seamen's Act" enabled to sue for and recover wages not exceeding twenty pounds; and in any such proceeding it shall be sufficient for such person to prove that the note was given by the owner, or by the master, or some other authorised agent, and that the same was discounted to and receipted by the seaman; and the seaman shall be presumed to have gone to sea with the ship, and to have duly earned or to be duly earning his wages, unless the contrary is proved, either by the production of his register ticket, or by the official statement of the change in the crew caused by his absence made and signed by the master as hereinafter required, or in some other manner.

62. And be it enacted, that all stipulations for the allotment of any part of the wages of a seaman during his absence shall be inserted in the agreement, and shall state the amounts and times of the payments to be made; and all allotment notes shall be in forms sanctioned by the Board of Trade.

*Health, &c., on Voyage.*

63. And be it enacted, that every place in any ship occupied by seamen or apprentices, and appropriated to their use, shall have a space of not less than nine superficial feet for every adult measured on the deck or floor of such place, which shall be kept free from stores or goods of any kind not being their personal property in use during the voyage; and every such place shall be securely and properly constructed and well ventilated.

64. And be it enacted, that the duty of issuing a scale of medicines and medicaments, which is by the "General Merchant Seamen's Act" imposed on the Lord High Admiral or the Commissioners for executing his office, shall be transferred to the Board of Trade.

65. And be it enacted, that in the case of ships bound to any ports in her Majesty's dominions in North America the Board of Trade may, by general regulations, dispense with the observance of so much of the "General Merchant Seamen's Act" as relates to lime or lemon juice, sugar, and vinegar, and may limit such dispensation to any class of such ships, and impose any conditions it may think fit, and may revoke any such dispensation.

66. And be it enacted, that the Board of Trade and the local marine boards may appoint proper medical inspectors to inspect the medicines, medicaments, lime or lemon juice, sugar, and vinegar, required by the "General Merchant Seamen's Act," and may, subject to the sanction of the Board of Trade, fix the remuneration of such persons; and such medical inspectors shall, for the purposes of inspection, have the same powers as the special inspectors hereinafter mentioned; and whenever any such medical inspector reports to the collector or comptroller of customs in any port, and at the same time to the master, owner, or consignee of any ship lying therein which is required to carry such articles, that in such ship the said articles or any of them are deficient in quantity or quality, or are placed in improper vessels, the master of such ship before proceeding to sea shall produce to such collector or comptroller a certificate under the hand of such medical inspector, or of some other medical inspector, to the effect that such deficiency has been supplied or remedied, or that such improper vessels have been replaced by proper vessels, as the case may be; and if such ship proceeds to sea without the production of such certificate, the owner, master, or consignee thereof shall be liable to a penalty not exceeding twenty pounds: provided, that every such inspector, if required by timely notice in writing from the master, owner, or consignee, shall make his inspection three

days at least before the ship proceeds to sea, and if the result of the inspection is satisfactory shall not again make inspection before the commencement of the voyage, unless he has reason to suspect that some of the articles inspected have been subsequently removed, injured, or destroyed.

*Bad Drugs liable to a Penalty.*

67. And be it enacted, that any person who sells or supplies any medicines, medicaments, lime or lemon juice, of bad quality, for the use of any ship, shall for each offence be liable to a penalty not exceeding twenty pounds.

*Weights and Measures.*

68. And be it enacted, that every master shall keep on board proper weights and measures, for the purpose of determining the quantities of the several provisions and articles served out, and shall allow the same to be used at the time of serving out in the presence of a witness, whenever any dispute arises about such quantities.

*Penalties for want of Space.*

69. And be it enacted, that if any place in any ship occupied by seamen or apprentices, and appropriated to their use, is not in the whole sufficiently large to give such space as herein-before required, or if any such place is not securely and properly constructed and well ventilated, the owner shall for every such offence be liable to a penalty not exceeding twenty pounds; and if any such space as aforesaid is not kept free from goods and stores as aforesaid, or if proper weights and measures are not kept or allowed to be used as hereinbefore directed, the master shall for every offence be liable to a penalty not exceeding ten pounds.

*Provisions for checking Desertion.*

70. And be it enacted, that if any seaman, after signing the agreement as hereinbefore required, or any apprentice, wilfully neglects or refuses to join his ship, or deserts, and then or afterwards is found or arrives at any place in which there is a court or justice capable of exercising jurisdiction under this act, he shall, on due proof of the offence, and when practicable, of a proper entry thereof in the official log-book, be summarily punished by imprisonment for a period not exceeding twelve weeks, with or without hard labour, at the discretion of the court or justice inflicting the same: provided that, in case the master or the owner or his agent so requires, such court or justice may, instead of committing the offender to prison, cause him to be conveyed on board for the purpose of proceeding on the voyage, or may deliver him to the master or any mate of the ship, or the owner or his agent, to be by them so conveyed, and may in such case order any cost and expenses properly incurred by or on behalf of the master or owner by reason of the offence to be paid by the offender; and, if necessary, to be deducted from any wages which he may have then earned, or which by virtue of his then existing engagement he may afterwards earn.

71. And be it enacted, that whenever a seaman or apprentice neglects or refuses to join, or absents himself without leave or deserts from, any ship in which he is engaged to serve, the master or any mate, or the owner, ship's husband, or consignee, may, for the purpose of carrying him before a justice, apprehend or require any police officer or constable to apprehend him, without first procuring a warrant, but so nevertheless as not to detain him in custody more than twenty-four hours, or such shorter time as may in the particular case be reasonable, before the case is heard or a proper warrant is procured; but if any such apprehension appears to the court or justice before whom the case is brought to have been made on improper or insuffi-

cient grounds, the master, mate, owner, ship's husband, or consignee, who made the same, or caused the same to be made, shall be liable to a penalty not exceeding twenty pounds.

72. And be it enacted, that if in the course of a voyage any seaman or apprentice is found absenting himself from his ship without leave, the master, or any mate, or the owner, ship's husband, or consignee, may, in any place in her Majesty's dominions, with or without the assistance of the local authorities, who are hereby directed to give the same, if required, and also at any place out of her Majesty's dominions, if and so far as the laws in force at such place will permit, apprehend him, and shall thereupon, if he so requires, and if practicable, convey him before some court or justice capable of hearing his complaint, to be dealt with according to law, or may, if he does not so require, or if there is no such court or justice at or near the place, at once convey him on board.

73. And be it enacted, that such wages, or parts of wages, forfeited for desertion, as are, by the section of the "General Merchant Seamen's Act," numbered IX. in the copy printed by the Queen's printer, applicable to the reimbursement of the expenses occasioned by such desertion to the master or owner of the ship from which the seaman has deserted, may be recovered by such master or by the owner or his agent in the same manner as the seaman might have recovered the same if they had not been forfeited; and any court or justice may in any proceeding relating to such wages order the same to be paid accordingly.

74. And be it enacted, that in all cases of desertion from any ship, in any place abroad, the master shall produce the entry of such desertion in the official log-book to the person or persons required by the "General Merchant Seamen's Act" to indorse on the agreement a certificate of such desertion; and such person or persons shall thereupon make and certify a copy of such entry, and also a copy of the said certificate of desertion; and if such person is a public functionary, he shall, and in other cases the said master shall, forthwith transmit such copies to the registrar of seamen in England; and the said registrar shall, if required, cause the same to be produced in any legal proceeding; and such copies, if purporting to be so made and certified as aforesaid, and if shown to have come from the custody of the said registrar, shall in any legal proceeding relating to such desertion be received as evidence of the entries therein appearing.

75. And be it enacted, that if any seaman on or before being engaged wilfully and fraudulently makes a false statement of the name of his last ship or last alleged ship, or wilfully and fraudulently makes a false statement of his own name, he shall forfeit out of the wages he may earn by virtue of such engagement a sum not exceeding five pounds; and such sum shall, subject to reimbursement of the loss and expenses (if any) occasioned by any previous desertion, be paid to the Board of Trade.

76. And be it enacted, that the Board of Trade may, by regulations duly published, dispense with the necessity of obtaining such sanctions for the discharge of seamen in her Majesty's dominions abroad as are required by the "General Merchant Seamen's Act," and may limit such dispensations to any particular class of ships or voyages, and may impose any conditions it may think fit, and may revoke any such dispensation; and whilst any such dispensation is in force, any master, whose agreement permits of his so doing, may discharge his crew, or any members thereof, without such sanction as aforesaid, in any place to which such dispensation may apply.

*Discipline on Voyage.*

77. And be it enacted, that any master or mate of, or any seaman or

apprentice belonging to, any British ship, who by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, does any act tending to the immediate loss, destruction, or serious damage of such ship, or tending immediately to endanger the life or limb of any person belonging to or on board of such ship, or who, by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, refuses or omits to do any lawful act proper and requisite to be done by him for preserving such ship from immediate loss, destruction, or serious damage, or for preserving any person belonging to or on board of such ship from immediate danger to life or limb, shall for each such offence be deemed guilty of a misdemeanor.

78. And be it enacted, that any seaman or apprentice who whilst on service commits any of the following offences, and who then is, or afterwards arrives, or is found at any place in which there is a court or justice capable of exercising summary jurisdiction under this act, may, on due proof of the offence, and of such entry thereof in the log-book as hereinafter directed, be summarily punished by imprisonment, with or without hard labour, not exceeding in duration the several periods following: (that is to say,)

1. Twelve weeks for wilfully damaging the ship or embezzling or wilfully damaging any of her stores or cargo:
2. Twelve weeks for assaulting any master or mate:
3. Four weeks for wilful disobedience to any lawful command:
4. Twelve weeks for continued wilful disobedience to lawful commands, or for continued wilful neglect of duty:
5. Twelve weeks for combining with any other or others of the crew to disobey lawful commands, or to neglect duty, or to impede the navigation of the ship or the progress of the voyage:

Provided always, that nothing hereinbefore contained shall take away or abridge any powers which a master has over his crew.

*Fines to be deducted from Wages.*

79. And be it enacted, that whenever any act of misconduct is committed which is by the agreement subject to a fine, the appropriate fine shall, if an entry of the offence is made and attested in the official log-book as hereinafter directed, and if the offence is proved to the satisfaction of the shipping-master to whom the fine is to be paid, be deducted from the wages of the offender; and the master or owner shall pay over every fine so deducted as follows; (that is to say,) in the case of foreign-going ships to the shipping-master before whom the crew is discharged, and in the case of home trade ships to the shipping-master at or nearest to the place at which the crew is discharged; and any master or owner who neglects or refuses to pay over any such fine as aforesaid shall for each offence be liable to a penalty not exceeding six times the amount of the fine retained by him: provided always, that if, before the final discharge of the crew in the United Kingdom, any such offender as aforesaid enters into any of her Majesty's ships, or is discharged abroad, the offence shall then be proved to the satisfaction of the officer in command of the ship into which he so enters, or of the consular officer, officer of customs, or other person by whose sanction he is so discharged; and the fine shall thereupon be deducted as aforesaid; and an entry of such deduction shall then be made in the official log-book, and signed by such officer or other person; and such fine shall, on the return of the ship to the United Kingdom, in the case of foreign-going ships, be paid to the shipping-master before whom the crew is discharged, and in the case of home trade ships to the shipping-master at or nearest to the place at which the crew is discharged.

80. And be it enacted, that whenever in any proceeding under the

"General Merchant Seamen's Act," or this act, any question arises concerning any offence committed by a seaman or apprentice which is punishable under either of such acts, the court or justice hearing the same may, if the justice of the case requires, order the offender to be punished, both by lawful imprisonment appropriate to the case, and, in addition, may make such order in regard of wages accruing due in the meantime as such court or justice may think fit.

81. And be it enacted, that no seaman or apprentice shall be entitled to any pecuniary allowance on account of any reduction in the quantity of provisions furnished to him during such time as he wilfully and without sufficient cause refuses or neglects to perform his duty, or is lawfully under confinement for misconduct either on board or on shore, or during such time as such quantity may be reduced in accordance with any regulation for reduction by way of punishment contained in the agreement.

*Naval Court on Voyage.*

82. And be it enacted, that if, whilst any ship is out of her Majesty's dominions, a complaint is made by the master or by any of the certificated mates, or by one-third or more of the seamen in her crew, or by the consignee, to any naval officer in command of any ship of her Majesty, or, in the absence of such naval officer, to any consular officer, such naval or consular officer shall thereupon, if circumstances admit, and if he thinks the case requires immediate investigation, but not otherwise, summon a court, consisting of not more than five and not less than three members, of whom, if possible, one shall be a naval officer not below the rank of lieutenant, one a consular officer, and one a master of a British merchant ship, and the rest shall be either naval officers, masters of British merchant ships, or British merchants, and such court may include the naval or consular officer summoning the same, but shall not include the master or consignee of the ship to which the parties complaining or complained against may belong; and the naval or consular officer on such court, if there is only one such officer on the court, and if there is more than one, the naval or consular officer who according to any regulations for settling their respective ranks for the time being in force is of the highest rank, shall be the president of such court; and such court shall hear the case, and may for that purpose summon and compel the attendance of parties and witnesses, and administer oaths and affirmations, and order the production of documents, and may discharge any seaman from his ship, and may, if the court is unanimous that the safety of the ship or crew, or the interests of the owner, absolutely require it, supersede the master, and appoint another person to act in his stead, such appointment to be made with the consent of the consignee of the ship, if then at the place, and shall, whether any order is made or not, make a report containing a statement of the proceedings and of the evidence, and send it to the Board of Trade; and such report, if purporting to be signed by the senior naval officer or master, or to be sealed with the consular seal, and if produced out of the custody of the Board of Trade or its officers, shall be admitted in evidence in any legal proceeding.

83. And be it enacted, that such court may order the costs of the proceeding before it (if any), or any portion thereof, to be paid by any of the parties thereto, and may order any person making a frivolous or vexatious complaint to pay compensation for any loss or delay caused thereby; and any cost or compensation so ordered shall be paid by such person accordingly, and may be recovered in the same manner as other sums hereby made recoverable, or may, if the case admits, be deducted from his wages; and the Board of Trade may, in any case in which it thinks fit so do, pay any costs of

any such proceeding, and make any reasonable compensation for any damage or delay caused thereby.

84. And be it enacted, that any person who wilfully and without due cause prevents or obstructs the making or investigation of any such complaint as aforesaid, shall for each offence be liable to a penalty not exceeding fifty pounds, or to imprisonment, with or without hard labour, for a period not exceeding twelve weeks.

*Log-Books.*

85. And be it enacted, that the Board of Trade shall sanction forms of official log-books, which may be different for different classes of ships, and shall contain, amongst other things, blanks for the entries herein-after required, and for entries as to the character and conduct of the several members of the crew; and an official log of every ship shall be kept in the sanctioned form, and all the blanks therein shall be duly filled up; and in all cases the entries shall be made as soon as possible after the occurrences to which they relate, and in no case shall any entry be made more than twenty-four hours after the arrival of the ship at her final port of entry or discharge in respect of any occurrence happening previously to such arrival; and the official log may, at the discretion of the master or owner, be either united with or kept distinct from the ordinary ship's log; and in cases in which they are kept distinct, and in which the official log is properly kept, nothing herein contained shall apply to the ordinary ship's log.

86. And be it enacted, that the master of every ship shall, upon every legal conviction of any member of his crew, and upon every infliction of punishment on any such member, and upon the commission of every offence by any such member for which it is intended to procure punishment to be inflicted or to enforce a forfeiture or exact a fine, immediately cause a statement of the offence, and in the case of a conviction or of punishment actually inflicted a statement of such conviction or punishment, to be entered in the official log-book, and shall cause such entry to be signed by a mate of the ship, or, if there is no mate, by the carpenter, boatswain, or one of the oldest members of the crew; and the master shall also from time to time or at some time before the discharge of the crew fill up the blanks left for that purpose in the official log-books with true entries concerning the conduct and character of the several members of the crew, or may, in a blank to be left for that purpose, state that he declines to give any opinion thereupon.

87. And be it enacted, that every master shall, in every case of illness or injury causing suspension of work or of death happening to any seaman or apprentice during a voyage, cause an entry thereof, and also, in the case of illness or injury, of the nature thereof and of the medical treatment adopted, and, in the case of death, of the cause of death, to be made in the official log book, such entry to be signed by the mate, or, if there is no mate, by the carpenter, boatswain, or one of the oldest members of the crew, and by the surgeon or medical man on board, if any, and shall also, in case of any seaman or apprentice ceasing to be a member of the crew otherwise than by death on board, thereupon immediately cause an entry of the place, time, manner, and cause of such seaman or apprentice ceasing to be a member of the crew to be made in the official log-book, such entry to be signed by the mate, or, if there is no mate, by the carpenter, boatswain, or one of the oldest members of crew.

88. And be it enacted, that no lists made in the form set forth in schedule (G.) to the "General Merchant Seamen's Act," shall be required from any master who has engaged his crew before a shipping-master; but the master of every foreign-going ship of which the crew has been so engaged shall,

before finally leaving the United Kingdom, sign and send to the nearest shipping-master a full and accurate statement, in a form to be sanctioned by the Board of Trade, of every change which takes place in his crew before finally leaving the United Kingdom.

89. And be it enacted, that in the case of foreign-going ships the master shall within forty-eight hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver to the shipping-master, or, if there is no shipping-master, to the collector or comptroller of customs, the official log-book of the voyage; and the shipping-master or officer of customs shall thereupon give to the master a certificate of such delivery, and no officer of customs shall clear inwards any foreign-going ship without the production of such certificate; and in every case in which any such ship is delayed for want of such certificate the tidewaiters left on board shall be maintained at the expense of the master or owner until the same is produced, and clearance may be delayed till such expense is satisfied.

90. And be it enacted, that in the case of home trade ships, the owner or master shall within twenty-one days after the thirtieth day of June and the thirty-first day of December in every year, transmit or deliver to some shipping master or officer of customs in the United Kingdom the official log-book for the preceding half-year, and the shipping-master or officer of customs shall thereupon give to the master or owner a certificate of such transmission or delivery; and no officer of customs shall give to the master or owner of any such ship as aforesaid a transire, or other customs document necessary for the conduct thereof, without the production of such certificate.

91. And be it enacted, that if any ship is so transferred as no longer to be within the operation of this act, the master or transferer thereof shall, within one month, if such transfer is made in the United Kingdom, and within six months if the same is made elsewhere, deliver or transmit to the shipping master or comptroller, or collector of customs at the port to which the ship previously belonged, the official log-book duly made out to the time of such transfer; and if any ship is lost, the master or owner thereof shall, if practicable, and as soon as possible, deliver or transmit to the shipping-master or comptroller or collector of customs at the port to which the ship belonged the official log-book duly made out to the time of such loss.

92. And be it enacted, that every shipping-master or officer of customs to whom any log-book is delivered in pursuance of this act shall, at any time after the expiration of forty-eight hours after such delivery, re-deliver the same to the master or owner, if required so to do; and such master or owner shall at any time within two years of such re-delivery, if required by the Board of Trade, produce the same for inspection, as it may direct.

93. And be it enacted, that if any log-book hereby required to be kept or made in a particular manner is not so kept, or if any entry hereby directed to be made in any log-book is not made at the time and in the manner hereby directed, or if, in case of any such change in a crew before leaving the United Kingdom as herein-before mentioned, such statement thereof is not signed and sent as herein-before directed, the master shall for each offence be liable to a penalty not exceeding five pounds; and if any log-book hereby required to be delivered, transmitted, or produced is not delivered, transmitted, or produced as hereby directed, the master or owner (as the case may require) shall for each offence be liable to a penalty not exceeding twenty pounds; and every person who makes or procures to be made or assists in making any entry in any official log-book more than twenty-four hours after the ship has arrived at her final port of discharge in respect of

any occurrence happening previously to such arrival, shall be liable to a penalty not exceeding thirty pounds; and every person who wilfully makes or procures to be made or assists in making any false or fraudulent entry or omission in any log-book, for each offence shall either be deemed guilty of a misdemeanor, or shall be liable summarily to a penalty not exceeding fifty pounds, or to imprisonment not exceeding three months, with or without hard labour, as the court or justice hearing the case may think fit.

*Payment of Wages and Discharge of Crews.*

94. And be it enacted, that no seaman who is engaged for a voyage or engagement which is to terminate in the United Kingdom shall be entitled to sue abroad for wages in any court or before any justice, unless he is discharged in the manner required by the "General Merchant Seamen's Act," and with the written consent of the master, or proves such ill-usage on the part of the master, or by his authority, as to warrant reasonable apprehension of danger to the life of such seaman by remaining on board; but if any seaman, on his return to the United Kingdom, proves that the master or owner has been guilty of any conduct or default which, but for this enactment, would have entitled the seaman to sue for wages before the termination of the voyage or engagement, he shall be entitled to recover, in addition to his wages, such compensation, not exceeding twenty pounds, as the court or justice hearing the case may think reasonable.

95. And be it enacted, that, except in cases in which seamen expressly require to be paid without waiting for an account, every master shall, not less than twenty-four hours before paying off or discharging any seaman, deliver to him, or, if the seaman is to be discharged before a shipping master, to such shipping-master, a full account, in a form sanctioned by the board, of his wages, and of all deductions to be made therefrom on any account whatever; and no such deduction (except in the cases above excepted, and also except in respect of any matter happening after such delivery,) shall be allowed unless a statement thereof is so made and delivered.

96. And be it enacted, that in the case of foreign-going ships all seamen discharged in the United Kingdom shall be discharged and receive their wages in the presence of a shipping master duly appointed hereunder.

97. And be it enacted, that the shipping-master shall hear and decide any question whatever between a master or owner and any of the crew, which both parties agree in writing to submit to him; and every decision so made by him shall be binding on both parties, and shall, in any legal proceeding which may be taken in the matter before any court or justice, be deemed to be conclusive as to the rights of the parties; and such written submission, though unstamped, signed by the parties, with an unstamped certificate of the decision signed by the shipping-master, shall be sufficient evidence that the same has been duly made.

98. And be it enacted, that upon the completion before a shipping-master of any discharge and settlement the master, or owner and each seaman shall respectively in the presence of the shipping-master sign a mutual release of all claims in respect of the past voyage or engagement, in a form to be sanctioned by the Board of Trade, and the shipping-master shall also sign and attest it, and shall retain and transmit it as herein-before directed; and such release so signed and attested shall operate as a mutual discharge and settlement of all demands between the parties thereto in respect of the past voyage or engagement; and a copy of such release, certified under the hand of such shipping-master to be a true copy, shall be given by him to any

person who may be a party thereto, and may require the same; and such copy shall be receivable in evidence upon any future question touching such claims as aforesaid, and shall have all the effect of the original of which it purports to be a copy; and in cases in which discharge and settlement before a shipping-master is required, no payment, receipt, settlement, or discharge otherwise made shall operate or be admitted as evidence of the release or satisfaction of any claim; and upon any payment being made by a master before a shipping-master the shipping-master shall, if required, sign and give to such master a statement of the whole amount so paid; and such statement shall, as between the master and his employer, be received as evidence that he has made the payments therein mentioned.

99. And be it enacted, that every master shall, upon any discharge being effected before a shipping-master, make and sign in duplicate, in a form sanctioned by the Board of Trade a report of the conduct, character, and qualifications of the persons discharged, or may state in a column to be left for that purpose in the said form that he declines to give any opinion thereupon; and the shipping-master shall retain one copy, and shall transmit the other to the registrar of seamen, or to such other person as the board may direct, to be recorded, and shall, if desired so to do by by any seaman, give to him or endorse on his certificate of discharge a copy of so much of such report as concerns him.

100. And be it enacted, that any shipping-master may, in any proceeding relating to the wages, claims, or discharge of any seaman hereby directed to be carried on before him, call upon the owner or his agent, or upon the master or any mate or other member of the crew, to produce any log-books, papers, or other documents in their respective possession or power relating to any matter in question in such proceeding, and may call before him and examine any of such persons, being then at or near the place, on any such matter.

101. And be it enacted, that any master or owner who, in any case in which discharge and settlement for wages are hereby directed to be made before a shipping-master, discharges any seaman or settles with him for his wages otherwise than as herein-before directed, shall for each offence be liable to a penalty not exceeding ten pounds; and any master who fails to deliver such account as herein-before required at the time and in the manner herein before directed shall for each offence be liable to a penalty not exceeding five pounds; and every owner, agent, master, mate, or other member of the crew, who when called upon by the shipping-master does not produce any such paper or document as herein-before in that behalf mentioned, if in his possession or power, or does not appear and give evidence, and does not show some reasonable excuse for such default, shall for each offence be liable to a penalty not exceeding five pounds; and every person who makes or procures to be made or assists in making any false certificate or report of the service, qualifications, conduct, or character of any seaman, knowing the same to be false, or who fraudulently forges or alters, or procures to be forged or altered, or assists in forging or altering, any such certificate or report, or who fraudulently makes use of any certificate or report which is forged or altered or does not belong to him, for each offence shall be either deemed guilty of a misdemeanor, or shall be liable summarily to a penalty not exceeding fifty pounds, or to imprisonment not exceeding three months, with or without hard labour, as the justice or court hearing the case may think fit.

*Powers of Investigation.*

102. And be it enacted, that all consular officers, and all officers of the

customs abroad, and all local marine boards, and shipping-masters, shall make and send to the Board of Trade such returns or reports on any matter relating to the British Merchant Service, or to persons employed therein, as it may require; and all shipping-masters shall, when required, produce to the Board of Trade or to its officers, all log-books and other documents, which in pursuance of this act are delivered to them, and the Board of Trade may require the attendance of any officer of customs or other public officer or servant in the United Kingdom whom it thinks fit to examine concerning any such matter as aforesaid, and may require from him any answers or returns as to any such matter, and may examine him on oath or affirmation, and cause him to produce before it any documents in his possession relating to any such matter.

103. And be it enacted, that every shipping-master, and every officer and agent of the Board of Trade, and every commissioned officer of any of her Majesty's ships, and every British consular officer, and every chief officer of customs in any place in her Majesty's dominions abroad, may require the production of the official log-book and any documents relating to the crew in the possession of the owner, master, or any of the crew, for the purpose of inspecting the same, and of seeing that the provisions of this act, and of every other act relating to merchant seamen, are complied with.

104. And be it enacted, that whenever the Board of Trade has reason to apprehend that any serious accident occasioning loss of life or property has been sustained or caused by or has happened on board of any ship, or that any ship has been lost or has received material damage, or that any of the provisions of this act or of any other act, relating to merchant ships or merchant sailors are so grossly neglected or disobeyed as to require special investigation, it may appoint the local examiners or any other proper person or persons as special inspector or inspectors to inquire into and to report thereupon; and every person so authorised may at all reasonable times, upon producing his authority (if required), go on board and inspect any ship, the inspection of which appears to him requisite for the purpose of the investigation, and every part thereof, not detaining the ship from proceeding on her voyage, and enter and inspect any premises the entry or inspection of which appears to him requisite for the same purpose, and may make such inquiries in the matter as he may think fit.

105. And be it enacted, that every such special inspector as aforesaid may, by summons under his hand, require the attendance of all such persons as he may think fit to call before him upon any matter connected with the execution of any of the powers and duties vested in him as such inspector, and may require answers or returns to any inquiries he may think fit to make, and may require and enforce the production of all log-books, accounts, agreements, or other papers or writings in anywise relating to any such matter, and may also require every such person to make and subscribe a declaration of the truth of the statements made by him in his examination: provided always that no such person need, for the purpose of obeying any such summons, travel more than ten miles from his actual abode at the time of receiving the the same, unless tender is made to him of such reasonable expenses in respect of his attendance to give evidence and his journeys to and from the place where he is required to attend for that purpose as would be allowed to any witness attending on subpœna to give evidence before any of her Majesty's courts at Westminster; and in case of any dispute as to the amount of such expenses the same shall be referred by the inspector to one of the masters of her Majesty's Court of Queen's Bench, who is hereby required, on a request made to him for that purpose under the hand of the said inspector, to ascertain and certify the proper amount of such expenses.

106. And be it enacted, that every person who wilfully impedes any special inspector appointed by the Board of Trade, or any other person hereby authorised to enter and inspect any ship or other premises in the execution of his duty, whether on board any ship or elsewhere, may be seized and detained by such inspector or other person, or by any person or persons whom he may call to his assistance, until such offender can be conveniently taken before some justice of the peace, or other officer having proper jurisdiction; and every such offender, and also every person who refuses to attend as a witness before any special inspector when required so to do in the manner hereby directed, or who refuses or neglects to make any answer, or to give any return, or to produce any document in his possession, or to make or subscribe any declarations, which any special inspector or other such person as aforesaid is hereby empowered to require, shall for each offence be liable to a penalty not exceeding ten pounds.

*Procedure.*

107. And be it enacted, that all misdemeanors mentioned or created by this act may be prosecuted by information at the suit of her Majesty's Attorney General, or by indictment, or by such other legal proceeding as is applicable in the like cases in any court having appropriated criminal jurisdiction in any of her Majesty's dominions and shall be punishable with fine or imprisonment, with or without hard labour, or both, as such court may think fit; and the court may, if it shall think fit, order payment of the costs and expenses, of the prosecution; and all penalties and other sums of money hereby made payable or recoverable may be recovered, with costs, and all offences hereby made punishable otherwise than solely as misdemeanors may be prosecuted and punished, and the costs of such prosecution recovered, by some appropriate summary proceeding, before one or more justice or justices, sheriff or sheriffs, or other officer or officers exercising a similar jurisdiction in any part of her Majesty's dominions, and all such summary proceedings, if instituted in England or Wales, may, so far as is consistent with the provisions of this act, be carried on either in the manner directed by an act passed in the session of the eleventh and twelfth years of the reign of her Majesty Queen Victoria, intituled "An Act to facilitate the performance of the duties of Justices of the Peace out of the sessions within England and Wales with respect to Summary Convictions and Orders," or, if the case admits, in the manner directed by the General Merchant Seamen's Act" as to penalties thereby imposed.

108. And be it enacted, that for the purpose of giving jurisdiction under this act every offence shall be deemed to have been committed, and every cause of complaint to have arisen, either in the place in which the same actually was committed, or arose, or in any place in which the offender or person complained against may be.

109. And be it enacted, that service of any summons or other matter in any legal proceeding under the "General Merchant Seamen's Act," or the "Seamen's Protection Act," or this act, shall be good service, if made personally on the person to be served, or if made by leaving such summons for him on board any vessel to which he may belong, with the person being or appearing to be in command or charge of such vessel.

110. And be it enacted, that in any legal proceeding of a civil nature under the "General Merchant Seamen's Act," or the "Seamen's Protection Act," or this act, every person, whether a party to the proceeding or not, shall be a competent witness, and be allowed to give evidence accordingly.

111. And be it enacted, that any justice or justices or other court or officer imposing any penalty under this act for which no specific application is

herein provided, may, if he or they think fit, direct that a part not exceeding one moiety thereof shall be applied to compensate any person or persons for any wrong or damage which he may have sustained by the act or default in respect of which such penalty is imposed; and, subject to such directions or specific application as aforesaid, all penalties recovered in the United Kingdom shall be paid over to the Board of Trade or applied as it directs, and all penalties recovered in her Majesty's dominions abroad shall be paid over into the public treasury of the place, and form part of the public revenue thereof; and all sums of money hereby made recoverable, not being penalties, shall be paid to the persons hereby enabled to recover the same; and all penalties and forfeitures which by the "General Merchant Seamen's Act," or the "Seamen's Protection Act" are made payable to the Seaman's Hospital Society shall be paid to the Board of Trade, or as it may direct.

112. And be it enacted, that no conviction, or other proceeding under the "General Merchant Seamen's Act," or this act, shall be quashed or vacated for want of form.

113. And be it enacted, that no distress levied in any proceeding under the "General Merchant Seamen's Act," or the "Seamen's Protection Act," or this act, shall be deemed unlawful, nor shall any person making the same be deemed a trespasser, on account of any defect of form in the summons, order, conviction, warrant of distress, or other proceeding relating thereto, nor shall such party be deemed a trespasser ab initio on account of any irregularity afterwards committed by him, but any person aggrieved by such defect or irregularity may recover satisfaction for the special damage in an action.

*Limitation of Time.*

114. And be it enacted, that every legal proceeding under this act shall in case the offence is committed, or the cause of complaint arises within twenty days before the commencement, or during the continuance of any voyage made either by the person complaining, or the person offending complained against, be commenced not later than twelve calendar months after the first subsequent arrival of such person, or of both of such persons, in the United Kingdom, and in all other cases within twelve calendar months after the offence or cause of complaint has been committed or arisen.

*Evidence taken abroad.*

115. And be it enacted, that whenever, in any legal proceeding in England in respect of any matter in which British consular officers have the power of taking depositions, it is proved that a witness who has been examined before any consular officer abroad is out of the United Kingdom, or cannot be found or produced on the trial or hearing, the deposition of such witness taken before such consular officer in the matter, and if the proceeding is criminal, in the presence of the party accused, and certified by such consular officer under his official seal to have been so taken, shall be admitted in evidence in such proceeding; and any deposition purporting to be so certified as aforesaid shall be deemed to have been so taken and certified as aforesaid, unless the contrary is proved.

*Application of Moneys.*

116. And be it enacted, that every shipping-master, officer of customs, or other public officer or servant, who receives or recovers within the United Kingdom any sum of money for the sale of any forms supplied to him by the Board of Trade, or any fee, fine, or penalty hereby made payable, shall be deemed to be the agent of such board in respect thereof, and shall, according to its instructions, either transmit the same to or to the account of such board,

or retain or apply the same as it may direct, and shall, at such times as such board may direct, render to it a full account of all moneys so received and of the application thereof.

117. And be it enacted, that all moneys coming to the hands of the Board of Trade under the provisions of this act which are not presently required for any of the purposes hereinafter mentioned, and of which no other application is hereby specially directed, shall be paid into the Bank of England to an account or accounts to be there opened in the name of such board; and such board may, at its discretion, invest any such moneys in parliamentary securities, but in no other security, and may from time to time either accumulate the annual produce of such investments, or apply the same to any of the purposes hereinafter mentioned, and may from time to time sell any part of the principal, and apply the proceeds to any of such purposes.

118. And be it enacted, that the Board of Trade shall, out of the moneys which come to its hands or to the hands of its agents as aforesaid, (except moneys of which some other application is hereby specially directed), and the produce of the investments of such moneys, in the first place pay all salaries, wages, remunerations, payments, and expenses hereby authorised, and all expenses properly incurred by the Board or its agents in pursuance of any of the provisions of this act, and in the next place pay annually to the Seamen's Hospital Society the following sums—that is to say, in case the net amount arising from such fines and forfeitures as have hitherto been received by the said society equals or exceeds one thousand one hundred and fifty pounds, then the sum of one thousand one hundred and fifty pounds, or, in case such net amount is less than one thousand one hundred and fifty pounds, then a sum equal to such net amount, and shall apply the remainder of such moneys for the benefit of persons engaged in or connected with the merchant service in such manner as it may think fit.

*East Indies and Colonies.*

119. And be it enacted, that in construing the "General Merchant Seamen's Act," the expressions, 'her Majesty's dominions," "her Majesty's possessions," "her Majesty's colonies," "her Majesty's plantations," "British possessions," and "British colonies." shall, from the thirty-first day of December one thousand eight hundred and fifty, be taken to include the territories under the government of the East India Company, and all other territories (if any) governed by virtue of any charter or licence from the crown or parliament of Great Britain.

120. And be it enacted, that the Governor-General of India in council and the respective legislative authorities in her Majesty's colonies and possessions abroad may, by any acts, orders, or other appropriate means, appoint any functionaries to perform any of the duties and exercise any of the powers within their respective jurisdictions which are by this act or by the "General Merchant Seamen's Act" committed to justices, officers of customs, or other public servants, and may direct in what manner the offences thereby made punishable shall be prosecuted and punished, and in what manner the penalties thereby imposed, and sums of money thereby made recoverable, shall be recovered in places within their respective jurisdictions, and in what manner and to what uses such penalties and sums of money shall be applied; and every such appointment and direction shall be valid, notwithstanding anything in the "General Merchant Seamen's Act," or in this act contained.

121. And be it enacted, that if the Governor General of India in council, or the respective legislative authorities in any of her Majesty's colonies or possessions abroad think fit, by any acts, orders, or other appropriate legal

means, to apply or adopt any of the provisions in the "General Merchant Seamen's Act," or in the "Seamen's Protection Act," or in this act contained, to any British ships registered at, trading with, or being at any place within their respective jurisdictions, and to the owners, masters, mates, and crews thereof, such provisions, when so applied and adopted as aforesaid, and as long as they remain in force, shall, in respect of the ships and persons to which the same are applied, be enforced; and penalties and punishments for the breach thereof shall be recovered and inflicted throughout her Majesty's dominions in the same manner as if such provisions had been hereby so adopted and applied, and such penalties and punishments had been hereby expressly imposed: provided that, if in any matter relating to any ship, or to any member of the crew of any ship, there appears to be a conflict of laws, the case shall be governed by the law of the place in which such ship is registered or licensed.

122. Provided also, and be it enacted, that every act, order or other form of law to be passed or promulgated by the Governor General of India in council, or by any other legislative authority in pursuance of this act shall respectively be subject to the same right of disallowance or repeal, and require the same sanction or other acts and formalities, and be subject to the same conditions in all respects, as exist and are required in order to the validity of any other act, order, or other form of law, passed by such Governor General or other legislative authority respectively.

123 And be it enacted, that any person who secretes himself and goes to sea in any ship without the consent of either the owner, consignee, or master or of any mate, or of any person in charge of any such ship, or of any other person entitled to give such consent, shall be liable to a penalty not exceeding twenty pounds, or to imprisonment, with or without hard labour, for a period not exceeding four weeks, at the discretion of the court or justice inflicting the same.

124. And be it enacted, that the municipal coporation of any borough, being a seaport, in the United Kingdom, and any body corporate, association, or trustees in any such seaport existing or constituted for any public purposes relating to the government or benefit of persons engaged in the British merchant service, or to the management of docks and harbours, or for any other public purposes, connected with shipping or navigation, may, with the consent of her Majesty's principal Secretary of State for the Home Department, appropriate any lands vested in them, or in trustees for them, as a site or sites for a sailors' home or sailors' homes, and may for that purpose either retain and apply the same accordingly, or convey the same to trustees, with such powers for appointing new trustees, and continuing the trust, as they may think fit.

*Act may be Amended, &c.*

125. And be it enacted, that this act may be amended or repealed by any act to be passed during this present session of parliament.

---

*Schedules referred to in the foregoing Act.*

*Schedule A.*

*Scale of Fees on Examinations.*

| | £ | s. | d. |
|---|---|---|---|
| For a Master's Certificate ... ... ... ... ... | 2 | 0 | 0 |
| For a Mate's Certificate ... ... ... ... ... | 1 | 0 | 0 |

*Schedule B.*

*Scale of Fees for Matters transacted at Shipping Offices.*

1. Engagement of Crews.

| | £ | s. | d. |
|---|---|---|---|
| Vessels under 60 tons ... ... ... ... ... ... | 0 | 5 | 0 |
| 60 to 100 „ ... ... ... ... ... ... | 0 | 10 | 0 |
| 100 to 200 „ ... ... ... ... ... ... | 0 | 15 | 0 |
| 200 to 300 „ ... ... ... ... ... ... | 1 | 0 | 0 |
| 300 to 400 „ ... ... ... ... ... ... | 1 | 5 | 0 |
| 400 to 500 „ ... ... ... ... ... ... | 1 | 10 | 0 |
| 500 to 600 „ ... ... ... ... ... ... | 1 | 15 | 0 |
| 600 to 700 „ ... ... ... ... ... ... | 2 | 0 | 0 |
| 700 to 800 „ ... ... ... ... ... ... | 2 | 2 | 6 |
| 800 to 900 „ ... ... ... ... ... ... | 2 | 5 | 0 |
| 900 to 1,000 „ ... ... ... ... ... ... | 2 | 7 | 6 |
| Above 1,000 „ ... ... ... ... ... .. | 2 | 10 | 0 |

2. Engagement of Seamen separately.

Two shillings for each.

3. Discharge of Crews.

| | £ | s. | d. |
|---|---|---|---|
| Vessels under 60 tons ... ... ... ... ... ... | 0 | 5 | 0 |
| 60 to 100 „ ... ... ... ... ... ... | 0 | 10 | 0 |
| 100 to 200 „ ... ... ... ... ... ... | 0 | 15 | 0 |
| 200 to 300 „ ... ... ... ... ... ... | 1 | 0 | 0 |
| 300 to 400 „ ... ... ... ... ... ... | 1 | 5 | 0 |
| 400 to 500 „ ... ... ... ... ... ... | 1 | 10 | 0 |
| 500 to 600 „ ... ... ... ... ... ... | 1 | 15 | 0 |
| 600 to 700 „ ... ... ... ... ... ... | 2 | 0 | 0 |
| 700 to 800 „ ... ... ... ... ... ... | 2 | 2 | 6 |
| 800 to 900 „ ... ... ... ... ... ... | 2 | 5 | 0 |
| 900 to 1,000 „ ... ... ... ... ... ... | 2 | 7 | 6 |
| Above 1,000 „ ... ... ... ... ... ... | 2 | 10 | 0 |

4. Discharge of Seamen separately.

Two shillings for each.

*Schedule C.*

*Sums to be deducted from wages by way of partial re-payment of the fees in Schedule B.*

1. In respect of Engagements and Discharges of Crews.

| | s. | d. |
|---|---|---|
| From wages of a first mate, purser, engineer, or surgeon of every ship of 200 tons or upwards | 2 | 6 |
| „ Every other mate of any ship ... ... | 1 | 6 |
| „ Carpenter of any ship ... ... ... ... | 2 | 6 |
| „ Steward of any ship ... ... ... ... | 1 | 6 |
| „ All others (except apprentices) belonging to any ship ... ... ... ... ... | 1 | 0 |

2. In respect of Engagements and Discharges of Seamen separately.

| | s. | d. |
|---|---|---|
| From wages of each seaman ... ... ... ... ... ... | 1 | 0 |

## Nautical Notices.

*Colonial Secretary's Office, Sydney, 2nd May*, 1850.

His Excellency the Governor directs the re-publication, for general information, of the following notice, from the *South Australian Government Gazette*, of the 21st March last, respecting the survey of the south coast of Kangaroo Island.

---

### Survey of the South Coast of Kangaroo Island.

*Harbour Master's Office,*
*Port Adelaide, 15th March*, 1850.

Sir,—I have the honour to forward, for the perusal of his Excellency the Lieutenant-Governor, the subjoined observations which I have been enabled to make in the course of a minute survey of the south coast of Kangaroo Island, from the completion of which I returned on the 9th instant.

I will, as soon as completed, transmit a chart, on which will be seen a delineation of the coast and of the obstructions to be found in each vicinity, as also the track lines of the schooner whilst employed on this duty.

It should be premised, that the southern coast of Kangaroo Island not having been laid down in the survey of New Holland, made by Captain Flinders, I have been under the necessity, with a view to distinguish the different landmarks, of adopting, in the absence of English names, those appearing on a French chart, which, in as far as regards this particular part, I have found tolerably accurate, though, in some instances, the projections are not sufficiently pronounced.

Proceeding first round the east end of the Island, and following a westerly course, I approached a rock thirty feet high, distant from Cape Willoughby thirty-eight miles, and bearing from it S.W.b.W. ½ W. A considerable ledge, even with the surface of the water, extends two miles to the south-east of this rock, which latter is observable eight miles off; its position, with regard to the nearest coast projection (Cape Lenois) is S.W. b.S. distant seven miles.

I persevered five miles further on the same course, when, turning round the east horn of an extensive bight (Vironne) I was agreeably surprised to find a bay, so far protected as to afford perfect shelter against all winds, except that from the south-east. The holding ground is good and clear, and the soundings vary with great regularity from eight to two fathoms. The existence of this roadstead is, I believe, very little known; but it might prove of essential advantage to navigators when overtaken by heavy weather in the neighbourhood of the otherwise unharbouring line of coast. The principal shelter must be sought as near as possible under the west extremity of the bay, where a vessel may be anchored only a quarter of a mile from the shore, in four fathoms. A tracing of the anchorage, with its soundings, will accompany the chart. When entering the bay, caution must be taken to avoid concealed rocks which lie four miles E. ½ S. from the West, or Kersaint Cape. They generally produce broken water, but when the wind is not sufficient to cause a lash of the sea, the danger might be neared unperceived.

As these rocks are placed nearly in the middle of the bight, with deep

water all round, the mere knowledge of their existence would be sufficient, with ordinary precaution, to remove any possibility of an accident.

During my stay in this bay, I caused the schooner's whaleboat to be carried some distance over the land, to a considerable sheet of salt water observable inland, and which I at first considered to be a lagoon. After rowing a distance of six or seven miles, the water became too shallow to permit our further progress with the boat; we therefore desisted, and returned to the more immediate object of my mission, though not before we had, with a few casts of a net, procured a considerable supply of fish, which appeared to abound there.

Eighteen miles further west, I reached a reef, of which a part is visible above the water, and the remainder on a level with the surface. It bears S.S.W. $\frac{3}{4}$ W. seven miles from Cape Bouquer—a projection W.b.S. fifteen miles from the western extremity of the bay above described.

Continuing six miles to the westward, I perceived a line of rocks standing two miles from a prominent cape (Cape du Conedie,) which from that spot extends its bearings from south to south-west.

The remainder of the south coast is clear, but too uniformly unbroken to offer any shelter whatever.

All the rocks of which I have spoken are not at a sufficient distance from the coast to be much in the track of vessels: whilst their proximity to the land would be likely, in most instances, to prevent navigators being taken by surprise. But, as too much caution cannot be exercised towards guarding against the danger arising from these rocks, the existence of which I sometime since reported, it may not be deemed superfluous that I should now offer the precise information which a more favourable opportunity for investigation enables me to submit.

Three in number, and perfectly detached as far as soundings will reach, these rocks embrace an expanse of five miles, in a direction from north-east to south-west. The exact position of the central one is 36° 25′ south latitude, 137° 16′ 30″ east longitude; its bearing from Cape Willoughby is S.W. $\frac{1}{2}$ W., at a distance of fifty-eight miles; and from Cape Kersaint, (the west end of the bay described above,) S. $\frac{3}{4}$ E twenty-three miles. The water in the immediate vicinity of these rocks is of considerable depth; soundings taken as near to them as I could approach, gave forty five fathoms. A channel of equal depth exists between each.

As the tides set with great force in directions east and west, it is incumbent on navigators, when within a possibly threatening distance from this danger, to maintain an ample offing to the southward, otherwise, in consequence of a drift tending strongly towards these rocks, a considerable error in the position of a vessel, during the hours of a single night, would, I can state from experience, be the almost certain result.

A report having reached me, that broken water had been observed forty-five miles southward of Cape Bedout, I steered in that direction, and made every effort, by numerous traverses and intersections, to obtain a view of the spot. I continued the search to the distance of sixty miles, but without succeeding in my purpose.

As I remembered to have observed, in some of the public prints, the mention of a statement emanating from the master of the *Augusta*, that he had seen heavy breakers seven miles south of Neptune Island, on the west coast of Kangaroo Island, I took occasion to satisfy myself of the correctness, or otherwise, of the assertion.

Thinking it right that all unnecessary alarm should be removed, I can affirm, with perfect confidence, as the result of a most diligent search, that the statement is erroneous, and the warning uncalled for.

On my return passage to Port Adelaide, I had reason to observe grounds for caution on the part of masters of vessels when rounding Cape Willoughby, to keep at a distance of at least two miles from the shore on account of the currents to be met with in that neighbourhood. These are sufficiently strong to carry a vessel, when only acted on by light winds, on a ledge of rocks projecting two miles south-east from the easternmost horn of Antichamber Bay, and which point I have distinguished on the chart under the name of St. Alban's Cape.

The necessity for this caution will be apparent when I mention the fact of two vessels having recently come in contact with the ledge.

Whilst in Back-stairs Passage, I renewed a search (in which, on previous occasions, I had been unsuccessful) for a sand bank, which was reported to me as existing there; but which most coasting masters have, all along, been unwilling to credit.

After repeated trials, I succeeded in establishing the correctness of the information. I found a bank, from the east end of which Cape Willoughby bears S.b.W., Cape Jarvis, N.W.b.N., and the southern Page E.b.S. ½ S., a quarter of a mile in breadth, and three miles in length in a north-west and south-east direction, having upon it at low tide a depth of water varying from 3 to 8 fathoms: and as soon as the margin is passed, a sudden increase to fourteen fathoms is found.

As the upheaving of this considerable body of sand has no doubt been caused by the counteraction of tide, which, in this passage, operates with great violence, it appears to me likely that each successive year will reduce the depth of water to be found on the bank; it should therefore be guarded against by those commanding vessels of heavy tonnage.

I have the honour to be, Sir,
Your obedient servant,
THOS. LIPSON,
*Naval Officer, Harbour Master, &c.*

---

WILLIAM ISLAND, PACIFIC.—The following extract of a note from Capt. Van Braam Schouckgwl of the Dutch Corvette of War Courier, gives the particulars of an island not in the chart.

By noon observation and mean of three chronometers, I made the islet I saw in 31° 52′ 48″ N., and 139° 58′ 46″ E.

It was but a small and rocky islet visible from deck at the distance of 2 to 2½ leagues. I passed on the west and south side at about 1 league, did not see any discoloured water, nor had any soundings at that distance, but the sea broke furiously on the island.

Gave it the name of Willian III, King of the Netherlands.

---

A notice has been received by Capt. Halsted the Secretary to Lloyd's that the lighthouse of Itacolomi at Maranham being under repair, the light is discontinued, and will re-appear on the 1st November next, when it expected the repairs will have been completed.

---

BARRIER REEFS, *Olinda Entrance.*—The barque *Olinda*, Captain Sinclair, on her passage from Sydney to the Mauritius in June last year, having missed the beacon on Raine Island and too far to leeward to beat up again for the Blackwood Channel, discovered an entrance through the Barrier

nearly three miles wide, about twelve miles to the northward of Raine Island. The *Olinda* passed through and sounded in thirty fathoms inside the entrance, and having run thirty-six miles on a W.b.S. course joined the track of the middle passage. After passing the barrier she had not less than sixteen fathoms, excepting a solitary patch of seven fathoms about twenty-three miles from the opening. The passage is named the Olinda Entrance, and the southern boundary of it is in lat. 11° 15′ S.

---

Entrance to Riga.—Advices from Riga of the 5th September state that the exchange committee of that place have published the report of the pilot master at Bolderaa concerning the new channel, which is in the following terms:—

The new channel, of 40 fathoms breadth is now ready, and the required marks and buoys placed, so that vessels can now pass in and out through the same without risk, with a draught of water of 13 feet English, at the usual height of the water, in the direction of west to east, and *vice versa*. Further, for the greater safety of the autumn navigation, is a large pile with a triangle, fixed in six fathoms water, before the entrance of the channel; and this mark, when brought in a direct line with the two land-marks on Magnusholm, will lead the shipmaster (in case the weather be such as to prevent the pilots keeping out to sea) to the middle of the channel, and direct to the harbour.—*Daily News.*

---

## New Books.

Singleton Fontenoy, R.N.—*By James Hannay*, (late of H.M. Navy,) author of "Sketches in Ultra Marine," &c.—In 3 vols.—Colburn.

When the daily press announced the advent of "Singleton Fontenoy," our ideas naturally reverted to "Biscuits and Grog," "Claret Cups," &c. by the same author, and from whom, if he kept his pen free from certain little dashes not calculated to obtain him friends, we anticipated high expectations as a naval novelist. We have received "Singleton" at so late a period before our matter for the present nnmber was cast, that we have as yet dipped only within the first few leaves. Our expectations as yet have not been disappointed: as a writer the author gives abundant proof of first-rate qualities; and, if we do not find yet the broad humour of Marryat lengthened out in scenes in which his readers have lost their gravity at the risk of never recovering it, we have here the full vigour of language applied with all the grace of the scholar and the gentleman.

Our limits compel us to be brief, and as we shall return to "Singleton Fontenoy" again hereafter, we must content ourselves with the following extract containing his resolve to go to sea, and the very satisfactory reasons for so doing!

"Why should I not go to sea"? said Singleton, in soliloquy. "The sea has been thought to be the great fountain of being, the *fons omnium viventium*, the mother of all life! From the sublime speculations of Thales, to the magnificent hymn of Byron, it has been the object of the wonder of the sage, and the admiration of the poet! From the sea rose Venus—in the sea perished Sappho! It has been described by Œschylus, and it was the birthplace of Undine! It received the life blood of Nelson, and the last sigh of Shelley! Every thing great and wonderful, and beautiful, is associated with its name. Cæsar struggled with its currents, and saved from its waters the proudest trophy of his genius. Cicero flew to it for refuge a few hours before he met his fate from the assassins. It was the bride of Venice, and the nurse of England! Enough I will go!"

## Nautical "Sayings and Doings".

A new entrance has been discovered by the *Olinda* in the Barrier Reefs of Torres Straits, which is described in our Nautical Notices.

Very important accounts have been received from Rio Janeiro, via Bahia, dated July 18th, by which the Brazilian Chamber of Deputies has passed a law declaring the slave trade to be piracy. Brazil seems to be in earnest to terminate the inhuman traffic, and, it is said, has even approved of the late affair of the *Cormorant*, in demolishing a fort which had fired on her while capturing slavers.

A company it appears has been formed for the purpose of re-establishing the Sandquay Dry Docks at the port of Dartmouth, and to be called the "Dartmouth Dry Dock Company." Steam-power and the increasing shipping interest renders such an undertaking both easy and desirable to the port of Dartmouth from its natural position.

Our American friends never idle, have been busy in improving the buoyage of their harbour of San Francisco, California. Among our Nautical Notices will be found accounts of several buoys being laid down,* added to which experienced pilots for the outer bar and port, the Sacramento and San Joaquin rivers, have been duly appointed under the superintendance of a Board of Pilot Commissioners. It is also stated that complete surveys have been made which will be speedily published.

The Chamber of Commerce of Santa Cruz Tenerife has notified 12th July, that the works of the Mole have reached a state of advancement which permits the embarkation of coal at all hours, independent of the tide; also that there were then 1000 tons of coal disposable at Santa Cruz, and that 80 tons per day might be readily embarked.

Captain David Cook of the barque *Sarah*, has been presented with a beautiful Silver Medal by Lloyds for his noble conduct in saving the lives of the crew and passengers of the *Caleb Grimshaw*.

The *Lady Catherine Barham*, a short time ago fell in with the Sardinian brig *Providenza* with the yellow fever raging on board, the master and mate dead and the crew reduced by it, not one of whom could speak English. Mr. Wood a young officer of the *Barham* nevertheless volunteered to navigate her to her destination. How well he performed his undertaking is well told as follows:—

The king of Sardinia appreciating Mr. Wood's conduct, so distinguished for courage, devotion and humanity in his audience of the 19th July last, has presented to this brave British officer, a gold medal as a public testimony of his royal satisfaction and esteem. The medal is very handsome. On the obverse side is the king's head surrounded by the works "Charles Albert, King of Sardinia. On the reverse side "To Edwin Archer Wood, officer of the British Mercantile Navy, the distinguished preserver of a Sardinian Brigantine, 1850." We congratulate Mr. Wood most heartily, and the British Merchant Navy in possessing this gallant officer, not doubting that it possesses many more of the same stamp.

The U.S. brig *Advance*, reached the Whalefish Islands on the 24th June, and the *Rescue* on the 27th. They would proceed on to Melville Island to winter.

The *Phœnix* a fine steamer lately sent to Australia from Newcastle was lost there on her passage from Grafton to Sydney, on the 17th March last. Her repairs computed at £8,700; want of power to get off a lee shore seems to have been the cause. She was 400 tons burthen. The iron steam ship

* Deferred from want of space for our next.

*Vice Roy*, lost off Seal Island, Nova Scotia, has been abandoned. Several attempts were made to release her but failed, and her materials have been sold.

It is stated that a Trinity Board from London has visited Galway and has ordered the construction of two lighthouses instead of the one now standing in a badly chosen position at Arran. The people of Galway think that this is in favor of their port being chosen for transatlantic intercourse, while the Cork people consider that Galway has no chance in comparison with their harbour.

Mr. Travers, says the (Athenæum,) who belongs, it is believed, to the family of the late Mrs. Harris,—has established very free and easy relations with the Sea Serpent,—who, as our readers know, is on a fishing excursion in Kinsale Bay. Some days since, the weather being of that pleasant kind which suggests morning calls, that gentleman, taking his yacht, put out to sea to visit the monster:—and of course found him. The serpent was lunching on conger eels at the time,—and as he continued his repast in the face of his visitor, Mr. Travers had an opportunity of making his observations at leisure. Amongst other things, the animal submitted his tail to Mr. Travers's inspection,—and it turned out to be an Elephant's trunk. Mr. Travers had the opportunity also of ascertaining its dimensions,—and found it to be "*rather over than under* thirty fathoms long." This is a favourite figure, seemingly with Mr. Travers; the length of the animal being the length of its leap as before recorded—"*at least* thirty fathoms." Mr. Travers was also able to make himself familiar with its nose.—A little incident occurred after luncheon which would seem to indicate that the serpent is somewhat of a humorist. After copious feeding the monster fell asleep; and Mr. Travers took advantage of its misplaced confidence to try the effect on it of rifle firing. A volley of four was discharged against it,—and the animal awoke. But this time, instead of leaping thirty fathoms high, the serpent merely shook his head at Mr. Travers, as much as to say he ought to be ashamed of himself,—"winked his eye" in a knowing manner,—and disappeared. Naturally enough he has since declined all future interviews with Mr. Travers.—The account does not state whether Mr. B. of Bandon was this time of the party. Thus the new sea serpent we shall add will not do for landsmen—how can it for seamen?

The electric telegraph, if not successful under sea, appears likely to be applied extensively to shipping and other purposes, along rivers, and in ports and harbours; and with this view it is intended to establish one over the Mersey between Liverpool and Birkenhead. It is also in contemplation to establish a line of wire communicating with the Custom House and chief shipping stations along the three miles of docks, so that in foul or foggy weather the owners of vessels may receive intelligence at the moment any ship is in the mouth of the river. Arrangements have been made by Mr. Walker, Superintendent of telegraphs on the South Eastern Railway, for running a waterproof wire for this purpose underneath the harbour at Folkestone.

A very remarkable engineering blunder has caused the entire destruction of a dry dock built near the Molo of Naples, at an outlay of some £30,000. Lately the whole fabric fell in, from the pressure of water, fortunately when no workmen were on the works. The blame is attributed to Prince Ischitella.

During the last cruise of the *Sappho*, 12, in the Bay of Fundy, a first class boy fell overboard, and would have been lost, had not the gallant Commander, the Honourable A. Cochrane, who witnessed the accident,

immediately jumped overboard and succeeded in saving the boy; the tide was running very strong at the time.

As Lieut. E. W. Lang, (1842), of her Majesty's ship *Victory*, was lately passing over the Milldam, Portsea, at high tide, he perceived a child that had fallen in the water, in the agonies of drowning, when, without stopping even to unbuckle his sword, he plunged in and rescued the unfortunate sufferer from its perilous situation.

The trial of Thomas Henderson, the Captain of the *Orion;* George Langlands, the First Mate; and John Williams, the Second Mate; for the shipwreck of the *Orion* in June last, off Portpatrick, commenced at Edinburgh on Thursday sen'night, and lasted until Saturday evening, when the jury found the prisoners guilty, and Lord Justice Clerk pronounced a sentence of transportation for seven years upon John Williams from the aggravation of his case of reckless neglect, and sentenced Captain Henderson to eighteen months' imprisonment. Several Naval Officers gave their evidence; amongst them were Captain Hawes, of Portpatrick; Lieutenant Park of the *Dasher;* Captain Robertson, of the Surveying Department.

We have been favoured by a correspondent with an account of the launch of a fine vessel, called the *Stornaway*, from the yard of Messrs. Hall, the eminent builders of Aberdeen, built for and commanded by Captain John Robertson, formerly of the *John o'Gaunt*, celebrated for his extraordinarily rapid passengers from Liverpool to China (frequently performing them in from 90 to 95 days). The *Stornaway* has been built under the inspection of Lloyd's surveyor, overlooked by the experienced eye of the Commander. She is composed of the very best materials; her length of keel is 140 feet, and 157 on deck, 28 feet beam, and about 18 feet depth of hold. Her tonnage is 530 tons new measurement, and 600 tons old. She is intended for the Bombay and China trade; and if she has anything like the success that attended her worthy Commander on his former voyages, she will prove one of the fastest ships that ever sailed from the Thames.

An admirable portrait of Captain Sir Edward Parry, painted by Drummond in the early part of 1820, after Sir Edward's return from his first voyage of discovery, when he reached Melville Island, has been presented to the U.S. Institution by Mr. Barrow, who obtained it at a public auction. The picture is in excellent preservation, and an acquisition to the Institution.

Accounts have been received from Captain Sir John Ross, dated Holstenburgh in Davis Straits, in June last.

We have received a specimen of the Submarine Telegraph insulated wire by which the communication between England and France, was effected on Wednesday, August 28th. The twenty-five miles employed weighed

| | | | | |
|---|---|---|---|---|
| Wire ... ... ... | 1 ton. | 2 cwts. | 1 q. | 10½ lbs. |
| Gutta Percha ... | 4 | 7 | 1 | 9 |

The extraordinary variety of articles in the construction of which the Gutta Percha is applied, would astonish our readers; and may be seen by a reference to their pamphlet, or an inspection of their works at 18, Wharf Road, City Road.

The wire which has been recently laid across the channel between Dover and Cape Grinez has been broken, but measures are in course of preparation to effect the communication in a more substantial manner, and with less liability to accident It is said that the former wire lay across the shoal called the Ridge, but we do not see what business it had there. The shortest distance would have been more eastward.

An iron lighthouse has just been finished at Birmingham for Middleton Point, Saugor Island, India.

The Lighthouses on Minehead, and Ballycotton Island, are finished and ready for the lighting apparatus. They are expected to be completed and lighted in the course of next month.

NAUTICAL QUERY, *by a Correspondent*.—A ship from Tynemouth sails a direct course between the North and East, till the sum of her distance run, difference of latitude made, and departure from the meridian be 500 miles. Now the degrees in the course steered are exactly one-third of the miles in the departure made; and it is required to find the lat. and long., the ship is come to, by a direct process: and it is also required to determine whether the ship would ever reach the North Pole, by continuing the same course, supposing no obstruction; and in what time she would reach the latitude of 89° 59′ 50″ N., sailing 6½ miles an hour.

A SHIELDS BAIRN.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory. From the 21st of August, to the 20th of September 1850.

| Month Day. | Week Day. | Barometer. In Inches and Decimals | | Thermometer In the shade. | | | | Wind. Quarter. | | Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | W. | 29·68 | 29·60 | 56 | 53 | 50 | 54 | S | N | 1 | 1 | or 2) | or (3) |
| 22 | Th. | 29·81 | 29·84 | 52 | 61 | 41 | 63 | SW | SW | 4 | 6 | b | qbc |
| 23 | F. | 29·91 | 29·98 | 55 | 63 | 49 | 64 | W | SW | 2 | 2 | b | bc |
| 24 | S. | 30·01 | 30·00 | 58 | 66 | 46 | 68 | S | SW | 1 | 2 | bcp 2) | bctp (3 |
| 25 | Su. | 30·08 | 30·03 | 58 | 62 | 51 | 65 | W | SW | 3 | 5 | bc | qod (3) |
| 26 | M. | 29 86 | 30 04 | 63 | 66 | 60 | 68 | W | NW | 4 | 4 | op (2) | bc |
| 27 | Tu. | 30·22 | 30·06 | 59 | 67 | 46 | 68 | S | SW | 4 | 6 | bc | qo |
| 28 | W. | 30·08 | 30·13 | 56 | 63 | 53 | 65 | NW | NW | 5 | 4 | qbcp 1) | bcm |
| 29 | Th. | 30·16 | 30·16 | 54 | 58 | 49 | 59 | NW | NW | 4 | 4 | bc | bc |
| 30 | F. | 30·24 | 30·25 | 50 | 61 | 42 | 62 | N | N | 2 | 2 | bc | bcm |
| 31 | S. | 30·32 | 30·32 | 55 | 59 | 44 | 62 | W | W | 2 | 2 | bc | o |
| 1 | Su. | 30·36 | 30·38 | 61 | 63 | 50 | 64 | SW | SW | 1 | 1 | od (2 | bc |
| 2 | M. | 30·41 | 30·38 | 61 | 67 | 52 | 68 | NW | NW | 1 | 1 | o | o |
| 3 | Tu. | 30·30 | 30·24 | 57 | 61 | 51 | 63 | NW | NW | 2 | 4 | bcm | o |
| 4 | W. | 30·32 | 30·33 | 55 | 61 | 50 | 62 | NE | NE | 3 | 3 | bcd (1 | be |
| 5 | Th. | 30 35 | 30·33 | 52 | 60 | 42 | 62 | N | N | 3 | 3 | b | bc |
| 6 | F. | 30·31 | 30·33 | 54 | 61 | 46 | 62 | N | N | 4 | 5 | b | qbc |
| 7 | S. | 30·40 | 30·40 | 51 | 62 | 42 | 64 | NE | NE | 4 | 3 | bc | bc |
| 8 | Su. | 30·46 | 30·42 | 54 | 57 | 44 | 58 | NE | NE | 2 | 4 | bc | bc |
| 9 | M. | 30·39 | 30·36 | 54 | 56 | 47 | 57 | N | N | 3 | 2 | bc | o |
| 10 | Tu. | 30·34 | 30 33 | 55 | 63 | 50 | 66 | NE | NE | 1 | 2 | o | bc |
| 11 | W. | 30·27 | 30·26 | 59 | 63 | 48 | 64 | N | NE | 2 | 2 | bc | b |
| 12 | Th. | 30·26 | 30·28 | 60 | 64 | 47 | 65 | NE | NE | 3 | 3 | bc | bc |
| 13 | F. | 30·30 | 30 28 | 50 | 62 | 41 | 63 | NE | NE | 3 | 3 | bc | bc |
| 14 | S. | 30·26 | 30·25 | 53 | 62 | 43 | 63 | NE | E | 1 | 2 | bc | bc |
| 15 | Su. | 30·29 | 30·29 | 56 | 63 | 47 | 65 | E | E | 1 | 3 | od 1) | bc |
| 16 | M. | 30 31 | 30·27 | 59 | 63 | 53 | 65 | NE | NE | 3 | 3 | bc | bc |
| 17 | T· | 30·35 | 30·31 | 57 | 60 | 53 | 61 | NE | NE | 3 | 4 | bc | o |
| 18 | W. | 30·13 | 30 01 | 58 | 66 | 47 | 67 | NE | NE | 4 | 2 | bc | bc |
| 19 | Th. | 29·86 | 29·78 | 57 | 55 | 52 | 66 | SE | SE | 1 | 1 | bc | o |
| 20 | F· | 29·68 | 29 64 | 57 | 65 | 55 | 67 | SE | S | 1 | 1 | od (1) (2) | bcp (4) |

August, 1850.—Mean height of the barometer = 29·973 inches; mean temperature = 60·4 degrees; depth of rain fallen = 1·79 inches.

## TO CORRESPONDENTS.

The large portion of our space occupied by the Mercantile Marine Bill, has obliged us to defer much promised matter for our next.

Hunt, Printer, Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

## Naval Chronicle.

NOVEMBER, 1850.

### On the Currents and Tides of the Mona Passage.*—*By Sir Robert H. Schomburgk, H. M. Consul at San Domingo.*

The wreck of the British brig *Brazilian* on the 8th of May this year, on the eastern coast of the Island of Santo Domingo near Punta Engano,† occurred in consequence of the strong N.W.b.W. current, that sweeps the Caribbean Sea, which, combining with the trade-drift, amounts probably when not overpowered by a local current, to no less than twenty-four miles per day, and frequently surpasses it.

The *Brazilian*, Capt. Power, sailed on the 1st of May, 1850, from Porto Cabello, bound for New York, laden with coffee, indigo, and hides, and made on the 7th of that month at 10 o'clock A.M., the Island of Mona, bearing N.N.E.; the wind being light from E.b.N., with sultry weather, the vessel carrying all sail by the wind. At 6 o'clock P.M., Mona Island bore E.$\frac{1}{2}$N., distant about ten miles. The master went about sunset on the fore-top-mast-head, and enquiring from the man at the helm, how the ship's head then was? received as answer, that she held her course north. Cape Engano bore then north-west, distant about thirty miles; and thinking that with a course of N.b.W., he should pass about twelve miles to the east of Cape Engano, he ordered the vessel to

* This passage has received its name from the small island lying about half way between the south-west end of Porto Rico, and the south-east end of Santo Domingo.

† Cape Engano is called by the pilots of Santo Domingo, Punta Espada, and the point called Punta Espada in the charts, is called Cabo Rafael by the pilots.

be kept as close to the wind as possible. She struck about a $\frac{1}{4}$ to 5 o'clock A.M. of May 8th, on a reef near Punta Cana, about quarter of a mile from the shore; Cape Engano bearing then N.N.E., about four miles and a half distant. The current had set, therefore, the vessel gradually from N.b.E. to N.W.

Having been informed of the wreck of the vessel, I proceeded in the Dominican man-of-war schooner *Constitution*, to the scene of the disaster. The passage from the harbour of Santo Domingo to Cabo Engano, is usually made in two days. We had however light winds, and experienced on approaching the Island of Saona a severe current, setting us N.W.bW. at a rate of two miles in an hour, and on rounding the east end of Saona, and approaching Punta Espada, the current set powerfully to the S.S.W. at the rate of two miles and a half to three miles in an hour, so that we found ourselves in the morning from twenty to thirty miles further from the point of our destination, than we were the preceding evening. I could only ascribe this to the influence of the tides, which are felt to a distance of six miles from the east coast of Santo Domingo, and being much stronger than the stream current, they give an impetus to the south-westward, until the tidal wave, having gradually lost the impetus with which it swept through the western side of the Mona Passage, merges again into the current.

In the case of the *Brazilian*, the vessel experienced in the first instance the N.W.b.W. current, which gradually and silently set her towards the shore; with the change of the tide her course was retarded, and in lieu of being at midnight, as Mr. Power expected, twelve miles to the eastward of Cabo Engano, he was at that time ten or twelve miles to the south of it, and a reef-girted shore perhaps not more than seven or eight miles under his lee. Cape Engano bore then probably N.b.E. distant twelve miles, the vessel had therefore been set three points to leeward, and had been retarded twenty miles in its course. Had the *Brazilian* tacked at that time she would have escaped all danger.

The *Constitution* on board of which I was, anchored on the 18th of May in the afternoon, near Punta Cana, somewhat more than a mile off shore. The wreck of the *Brazilian* was from here north one mile. We found for the subsequent three days, that the tide run with a velocity of three knots and a half for nearly nine hours, towards the S.S.W.; and merely for two hours and a half to three hours to the N.E.b.N. The pilot on board the schooner told me that he was well acquainted with this coast, and that the tides were not always of equal strength, running sometimes six hours to the S.S.W., and six hours to the N.E.; at other periods the ebb-tide was stronger than the flood-tide, and if such a case occurred, the north-easterly tide run even with greater velocity, than the south-westerly.

The great strength of the current, is to be ascribed to the swelling of the Orinoco, which river commences to rise in April, and reaches its maximum height in August. It pours then out its vast masses of waters, through its numerous mouths, sweeping along the southern shores of

the Carribbee Islands, and directing its centre towards the promontory of Santo Domingo called Point Mongon, (to the south of which lie the small islands of Beata and Alta Vela,) it forms there such an opposing mass of waters to vessels, that they are known to have been detained there for weeks.* During the inundations of the Orinoco, the velocity of the N.W.b.W. current, is along the south side of Porto Rico from one knot and a half to two knots in an hour; and the stream approaching the Mona Passage, sends an offset through the same, which continues its course, assisted by the ebb-tide, until it meets the tidal wave from the broad ocean, and overpowered by its stronger antagonist, receives a south-western impulse, until it reaches that distance from the shores of Santo Domingo, where the tides are no longer felt with violence. It merges afterwards in the N.W.b.W. current, now combining drift with stream, and continues its central course along the south side of Jamaica, until the Carribbean current rushes into the Gulf of Mexico.

The mass of water which this current disturbs in its course sweeping to the north-west, produces no doubt an indraught, which causes the tidal wave that comes from the ocean, to increase its velocity while running through the Mona Passage in a S.S.W. direction.

From September to April, the Orinoco is low; it acquires its minimum state in February. During this period the north-westerly current is weak, and any strong south wind that rises in the basin of the Carribbean Sea, will produce an accumulation of waters, which getting to the north, finds opposition by the configuration of the coasts of Cuba, Santo Domingo, and Porto Rico, and are there forced in a south-easterly direction. But this is not the only cause of a south-easterly current which is occasionally found in these localities. A northerly gale on the coast of the United States, or between the parallels of 20° and 40° north, and the meridians of 40° and 60° west, presses the masses of waters onward to the south, until they meet the barrier which the greater Antilles place to their progress; the oceanic waves rush therefore through the passages of the Bahamas and Caicos Islands, the passage between Cuba and Santo Domingo, and between the latter island and Porto Rico, &c.,† with fearful violence, assuming an easterly direction as soon as they reach the Caribbean Sea, and hence they set frequently at that time to the south-east from Alta Vela along the coasts of Santo Domingo and Porto Rico.

* Admiral Columbus felt this current during his second, and likewise during his last voyage; and Washington Irving observes, that the currents are here so violent that vessels are often detained for months, waiting for sufficient wind to enable them to stem the current.

† In a paper "On the heavy swell along some of the West India Islands, called the ground sea or north sea," (Journal of the Royal Geographical Society of London, vol. v. p. 23.) I pointed to northerly gales in the Atlantic, as the cause of this phenomenon, and observed that the period when it sets in is generally October, and that it continues though with some intermission till April and May. The causes that produce the ground sea, are likewise the reasons of the south-easterly current along the south side of the great Antilles.

The coasters are well acquainted with this fact, and it often occurs that such a current shortens a passage from the city of Santo Domingo, to St. Thomas, three days. The tidal wave recedes during such periods through the Mona Passage, with the velocity which the flood tide usually possesses; but it sets from Mona Island north-eastward towards the little Island of Zacheo, near the north-western point of Porto Rico.

From all these observations it results, that a vessel bound from Costa Firma to the United States, that purposes to sail through any of the passages that the Caribbean Sea affords, should consider at what period the passage is made, and if between April and August the greatest caution ought to be used in passing any of the outlets from the Caribbean Sea to the Atlantic Ocean. It will be always on the safer side in passing by the Island of Mona, to consider that the stream, whether the consequence of currents or of tides, sets to the leeward, except actual observations prove to the contrary.

I have now for more than twenty years collected data respecting the N.W.b.W. current that sweeps the Caribbean Sea, its existence is sufficiently proved and generally acknowledged by navigators. I propose, therefore, that in lieu of the long name which I have given to it from the point towards which it sets, it receives the better appellation of the Caribbean current. Whatever may be the little deviations in its direction which the configurations of coasts give to it, its main direction is to the north-west.

---

THE ARCTIC EXPEDITIONS.—*Return of H.M. Ship North Star. Mr. J. Saunders, Commander, and Prince Albert, Commander H. Forsyth.*

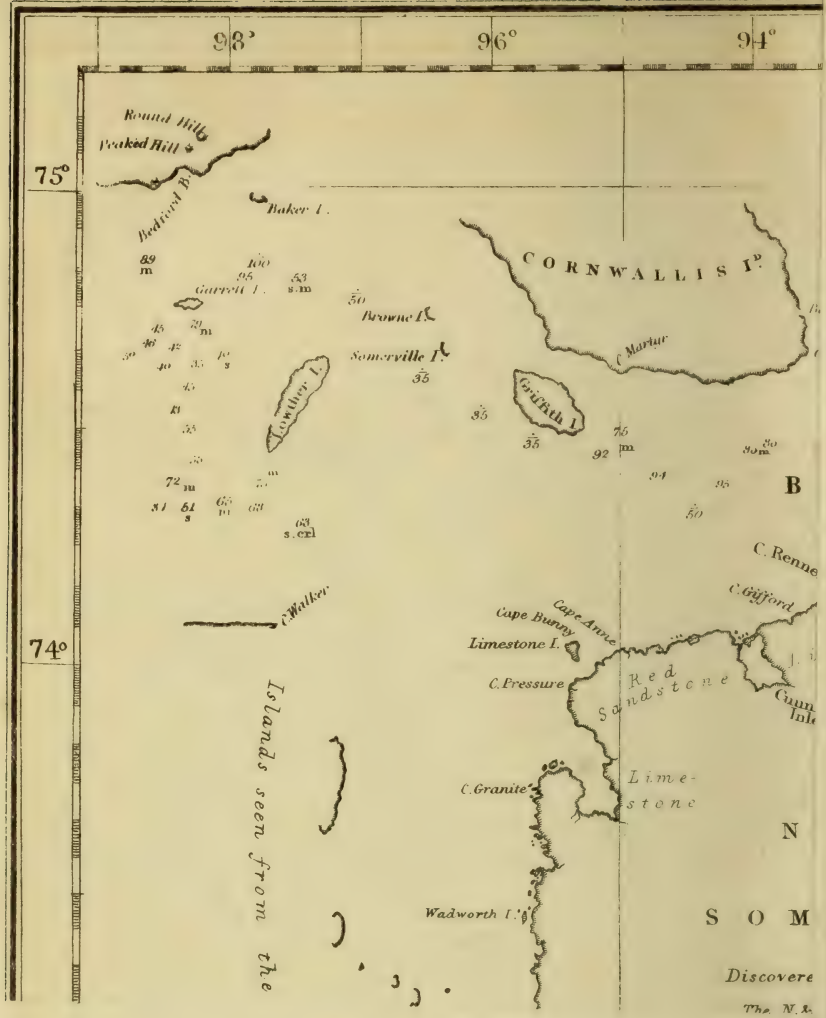
The last number of the *Nautical* was scarcely completed, when the *North Star* from Baffin Bay, with intelligence from our fleet of Arctic Ships, electrified us by her sudden arrival, and opened afresh that deep vein of painful excitement with which the recollection of Sir John Franklin and his companions is inseparably connected. Uuder the command of Mr. James Saunders, the *North Star* has acquitted herself well of her important task. The report of her proceedings made to the Admiralty by this officer, like everything connected with Arctic affairs is so deeply interesting at the present moment that we preserve it entire in the *Nautical.*

Mr. Saunders says:—

*Her Majesty's Ship, North Star, Spithead,*
*28th September*, 1850.

AFTER the boats of the *Prince of Wales* whaler left the ship on the 19th of July last year, I proceeded along the edge of the ice in search of an opening to get through the pack (as there was no land floe in Melville Bay,) being occasionally compelled to make fast to a berg, or large floe, whenever our progress was impeded, either by the closing up of the ice or calm weather. In this way we continued making little or scarce any

BARROW STRAIT,
PRINCE REGENT INLET,
&c.
NORTH DEVON
BARROW STRAIT
NORTH SOMERSET
Discovered by Parry 1819
The N & W coasts travelled by Sir J. C. Ross, on foot 1849
PRINCE REGENT INLET
CORNWALLIS Id
WELLINGTON STRAIT
Old Encampment of Erebus & Terror
Traces of missing Expedition
H.M.S. Assistance 23rd August 1850
Griffith I.
Somerville I.
Browne I.
Baker I.
Peaked Hill
Round Hill
C. Riley
Innes Pt
Table land
Maxwell B.
C. Rennell
C. Gifford
Cape Bunny
Cape Anne
Limestone I.
C. Pressure
Cunningham Inlet
Garnier Bay
Waterfall
C. McClintock
Pt Leopold I.
C. Clarence
P. Leopold
Whaler Pt
Heavy Stream Ice filling up the Inlet
Heavy Gale from the Eastward
Supposed breakers
Cape Riley
Admiralty Inlet
Cape Lady Jane
Humphrey Head
Hoppners Track
Jackson Inlet
Port Bowen, Parry wintd 1824-5
Port Neill
Table hill
Var.n 123°22' W
Stratton Inlet
Burnet Inlet
Powells Inlet
Benjamin Hobhouse Inlet
Crokers Bay
Table land
C. Walker
Islands seen from the coast of N. Somerset
C. Granite
Wadworth I.
Bear I.
Cape Coulman
B. of 4 Rivers
Cresswell Bay
Adelaide B.
Barrier of Ice
Union R.
Duck L.
Apparent Harbour
Armitage Pt
C. Garry
Fournall B.
Long R.
C. Bird
Brentford B.
Browns I.
Grumble Pt
Murray B.
Fitzgerald B.
C. Kater
75°
74°
73°
72°
98°
96°
94°
92°
90°
88°
86°
84°


98°
96°
94°
75°
74°
Round Hill
Peaked Hill
Bedford B.
Baker I.
Garrett I.
Browne I.
Somerville I.
Lowther I.
CORNWALLIS I.
C. Martin
Griffith I.
C. Walker
Islands seen from the
Cape Bunny
Cape Anne
Limestone I.
C. Pressure
C. Granite
Wadworth I.
C. Renne
C. Gifford
Red Sandstone
Lime-stone
B
N
S O M
Discovere

progress, until noon of Sunday, the 29th of July, being then in lat. 74° 32′ N. and long. 79° 19′ W., when a fine breeze sprung up from E.N.E., with clear weather, which enabled us to run between the floes (which had considerably opened, leaving wide lanes of water between them) at the rate of about five miles an hour. We continued running in this way as nearly in the direction of Cape York as the ice would allow us, and I then had great hopes that we should be enabled to get through without much detention; but we were doomed to be again disappointed, for about 4h. P.M. the ice began to close very rapidly from the southward, which prevented our further progress, and we were obliged to seek shelter in a a bight in one of the largest floes we could see. The wind shifted to S.S.E., and blew a strong gale, with heavy rain. The ice, which was all in large floes, pressed against each other with great force, squeezing up, and breaking in all directions. The ship being providentially placed in a bight, or notch, in the floe, to which she was made fast, we were enabled to veer her further into it, as the edge of the floe broke away by the outward pressure; and by that means kept her in the only pool of water to be seen, and prevented her from receiving any injury. The rudder was unshipped and hung across the stern, and the yard and stay tackles got up, and everything prepared for hoisting the large boat out, in the event of any accident happening to the ship.

A quantity of provisions was also got on the upper deck ready for placing in the boats, if wanted, and which were kept up during the whole time the ship was beset.

At midnight it blew a very heavy gale with rain from S.S.E., which weather continued with little intermission for the two following days. We were thus beset by the ice from this date until the 26th Sept., and kept drifting about with it in a totally helpless condition; every opportunity, however, was embraced of endeavouring to extricate the ship by heaving and warping whenever the slightest opening took place in the ice.

During the month of September the bay ice formed so strongly as to cement the whole mass together, forming one large floe. On the 21st September it blew a strong gale from the eastward, and the ship drifted with the pack rapidly to the westward; and at about 5 P.M., the ice was opened in consequence of its coming in contact with an immense berg of some miles in circumference, which was lying aground, and kept breaking up the floes as they were carried against it with the current, the ship also drifting directly in front of it, and at 9 P.M. she was within a quarter of a mile of it. The yard tackles were got up on both sides, in readiness to get the large boat out, as it was impossible to say on which side they might be wanted, the ship being turned round in all directions by the ice as it pressed in. We continued in this way until about midnight, when we were pushed round the inner edge of the berg, with a body of ice which had now become very small by the immense pressure, and continued drifting with it to the north-west. Fortunately the ice was now small and much decayed, for had it not been so nothing could have saved the ship, and I fear the crew also; for unlike a

whaler, which, although severely nipped, is kept afloat by her empty casks until provisions can be got up sufficient to last for a long time; with us it would have been quite otherwise, for being deeply laden, if nipped, we should have sunk almost immediately.

On the 22nd September, the ship continued drifting in the same manner to the north-west with the ice, which was continually coming in contact with the numerous bergs that were aground. At noon the latitude observed was 75° 38′ N., and longitude 68° 12′ W.; throughout the day the wind was blowing strong from the south-east.

At 1 A.M. of the 23rd, we were much in the same perilous situation as we were at midnight of the 21st, being carried along in front of an immense iceberg which lay aground, and against which the ice was pressing with great force; but the same Almighty Providence which had protected us on all former occasions was equally kind in the present, and allowed us to be pushed clear of it, the ship passing along its easternmost side, about 300 yards from it.

We continued drifting along the land in a most unsafe and precarious situation, as the ice was carried about, and broken up in its passage between the numerous icebergs which lined the coast, until noon of the 26th of September, when we appeared to be drifting directly towards Wolstenholme Island; and it was doubtful whether we should pass within or without it. Here, providentially, the ice appeared much looser, caused by the water being much deeper, and allowing the bergs that had passed the ridge of others that were aground off Cape Dudley Diggs (and which materially retarded the progress of the pack) now to float away. At 1 P.M. we opened Wolstenholme Sound, and observed it perfectly clear of ice, caused by several icebergs lying aground off Cape Athol, which prevented the ice from entering, and turned it outside of the island.

All sail was immediately made on the ship (although it was blowing a heavy gale) to force her through the ice. Fortunately the masts and yards held on, and she pushed her way through, and reached open water at 3 P.M. The rudder was then shipped, and we stood up the Sound, anchoring in 19 fathoms, when it became dark.

On the 30th of September, after examining the Sound, the ship was removed to winter quarters, at the head of the bay, and safely moored in lat. 76° 33′ 0″ N., long. 68° 56′ 15″ W.

I cannot sufficiently express the heartfelt joy, that every man and officer felt at this unexpected and miraculous dispensation of Providence in releasing us from the ice in the extraordinary manner in which we were; for if we had not got in here, I fear very few, if any, of the crew would have survived the winter, as it is more than probable the ship would have gone to pieces, and a sufficient quantity of provisions could not have been saved to have lasted them for so long a time. This the most thoughtless of the crew appeared to be quite aware of.

Here we found a settlement of Esquimaux, and another about twelve miles down the Sound. They appear very harmless people, but possessing less ingenuity than any race of beings I have ever yet seen. Each settlement consists but of one hut, in which a number of families

dwell. These huts are generally formed about half under ground on the slope of a hill near the sea, the upper part being built over in a very rude manner with rough stones. They do not know the use of boats, and their only weapon appears to be a small spear, which they carry in their hand. They live entirely on raw food, mostly seal's flesh. Not having boats, they are compelled to follow the land ice to the north during the summer, depositing the seals which they kill, at their various stations along the coast, on which they retreat during the winter, as their stock to the northward becomes exhausted.

As I cannot here enter into minor details as to our proceedings throughout the winter, I would briefly state that the ship became frozen in on the 12th of October, when the housing was spread over, and every other preparation made for the winter.

The thermometer did not fall below zero till the beginning of November.

On the 24th of October the sun just showed itself above the hills at noon, and did not reappear until the 17th of February, when his upper limb again made its appearance—a period of 116 days.

During the winter we had heavy gales of wind occasionally from the eastward, during which time the thermometer invariably rose, sometimes nearly to zero; as also in cloudy weather. I may here add that, throughout the whole voyage neither the marine nor the aneroid barometer have been of any use to indicate the weather, although both appear quite sensitive and move together. We found February our coldest month, on the 24th of which the thermometer was registered at nine and ten P.M. at 63½ below zero, and at 61 for the following eight hours. It also fell to 63½ on the 27th. The thermometer by which this was registered, and the meteorological table was kept, I have carefully put away, in order that it may be tested, as I believe that to be the coldest natural temperature ever registered.

On Monday, January 28th, 1850, an Esquimaux was brought alongside on a sledge in a most deplorable condition from frost bites, and as his companions threw him off from it at the foot of our ladder, making us to understand they wished us to cure him, I felt compelled, from humanity's sake, to receive him on board, though reluctantly, as he would be much in the way of our men on the lower deck. For the first two months he appeared to do well, and I was in hopes we would be enabled to cure him; and, in the mean time, as a sort of recompense, I expected to make him understand our language sufficiently to inquire if he could give us any information respecting Sir John Franklin and his party, or any of the other Arctic ships. However, in this I was disappointed, for although he was on board upwards of three months, he did not appear to understand us better than when he first came. His new mode of living being totally different to what he had been accustomed, he became unwell, and died on the 9th of May.

Our crew remained in good health and spirits throughout the winter, they of their own free will taking every necessary exercise, until the month of April, when several slight cases of scurvy made their appear-

ance; and of the 12th of May the asssistant-surgeon (who examined the men every Monday morning) reported to me that he feared we should have still more fresh cases, and recommended that vegetable diet, or pickles, should be supplied to them as a preventive. Having none on board for our own use, I felt it my duty to order that part of what we had on board for the Arctic ships should be issued. I also directed that the crew should be put on full allowance of bread, they having been on two-thirds during the winter, we not having had room to stow the same proportion of that species as of the other kind of provisions on leaving England.

I regret to state that four of the men died, although neither of the cases could be attributed to the climate.

I cannot help here mentioning the very great attention and kindness paid by Mr. James Rae, the assistant-surgeon, to the sick under his care, on all occasions; nor was it limited to that alone, for his attentions to the ventilation of the ship, and health and comfort of the crew, were his most anxious study; and I received many valuable suggestions from him on these points. I therefore strongly recommend him to the favourable consideration of their lordships.

At the commencement of the severe season we were annoyed with steam from the galley, when a large ventilating funnel was placed over the coppers, and led up through the housiug, which completely carried away all the steam; several other smaller ones were got up in different parts of the ship, and I may state that throughout the whole season there was not a particle of damp on the lower deck, and the temperature was between 40 and 50.

Not being fitted with the heating apparatus, I got a stove fitted in the gunroom, and another in the cabin, as also two on the lower deck, from which funnels led through all the cabins, keeping the temperature to between 40° and 50°, and preventing any moisture from accumulating. The officers were also enabled to dry their clothes, when a strong fire was kept up, by hanging them round about the funnels.

As the spring and summer advanced shooting parties were sent away, when all we succeeded in getting was only about fifty hares and a few wild ducks. Several foxes were also shot during the winter.

Beacons were erected on the north and south entrance of North Star Bay, in which were placed a cylinder, containing an account of our having wintered there, and intentions of proceeding to the westward when liberated, a copy of which I enclose.

A beacon was also erected to mark the place where the four men were buried, in which a similar notice was enclosed, having added to it their names, ages, and date of decease.

When the weather became sufficiently warm to allow the carpenters to handle their tools in the open air, the ice was dug away from around the bows of the ship for three feet deep to examine and repair what injury she received in coming through the ice last year, which was found to be very trifling; the galvanized iron with which the bows had been covered was all ragged and torn off; it being thinner than copper was of no pro-

tection to the wood, and only injured the wards in hauling them across her bows. The iron casks in which we held our tar and oil, were broken up and used for covering her bows, which made the ship in a much better condition for taking the ice than when she left England. The upper deck was then caulked, as the frost during the winter had drawn all the pitch out of the seams. The pitch in the seams in the ship's sides was found not to be injured, having been protected from the intense cold by the snow embankment with which she was surrounded during the winter.

During the month of June the rigging was refitted and blacked down; the sails repaired; the ship and boats painted, and everything got ready for sea.

From this time the few cases of scurvy which had made their appearance in April now rapidly disappeared, and since then we have all been perfectly healthy.

About the 1st of July everything being in readiness for sea directly an opportunity might occur, my whole attention was directed to watching the progress of the dissolution of the ice; and Mr. Leask, the ice-master, was sent to the top of a high hill every day to examine its state in the offing.

The ice rapidly disappeared in the bay, the floe becoming covered with pools of water, and in many places holes formed right through, which increased in number every day. All along the shore the ice was broken up by the tide, and it daily became more difficult to land.

On the 13th of July, the water caused by the melting of the snow on the hills in the interior, which poured down like a river through the south ravine, had completely cracked the floe across, and opened it out from twenty to sixty feet in width.

I determined to saw a canal down to it from the ship; a distance of 2,030 yards. On the morning of the 16th we commenced our labours, beginning from the ship and sawing towards the crack. On the evening of the 22nd the two straight cuts were completed; the ice varying in thickness from two to four feet and a half. On the 23rd we commenced cross cutting, which we found to form more than twice the above length on account of having been obliged to enlarge the width of the canal one yard in every ten, to admit of the floating out of the pieces when the ice in the offing might open.

On the evening of the 25th, the ice having become so rotten, the saws and other implements were brought on board; for it now decayed so very rapidly that I considered it would soon all break up of itself.

During the latter part of July, the ice decayed in an astonishingly rapid manner; the floe which some short time ago was four feet in thickness, was now broken into small pieces, and was fast disappearing—so much so, that the water alongside the ship on the surface was perfectly fresh.

On the morning of the 1st of August the ship was got under weigh and hauled out of her winter quarters, where she had remained upwards of ten months. During the whole of that day and the next all hands

were employed warping, heaving, and towing her through the ice in the Sound, and, after very great exertions, succeeded in getting her into open water on the morning of the 3rd. We then made sail and beat out between Wolstenholme Island and the main, and stood to the westward. About twenty-five miles west of Wolstenholme Island we fell in with the pack or middle ice, which we entered, and after several vexatious stoppages and hard labour we succeeded in reaching open water at midnight of the 6th, and stood over for Possession Bay: on our passage to which, a distance of 150 miles, we did not meet with any ice—not even bergs.

At eight P.M. of the 8th of August I sent a boat into Possession Bay to ascertain if there were any tidings of the Arctic ships, or any other information to guide me; having failed last season in meeting with the *Investigator* I was comparatively without instructions. At midnight the boat returned without having discovered any trace of the ships, except Capt. Sir James Ross's instructions to Capt. Bird, dated July, 1848 (printed in Arctic Papers, marked C. page 4); also a notice from Capt. Ross, stating that they got through the pack on the evening of the 22nd August, 1848, examined Pond Bay on the 23rd, and left this notice on their way to Lancaster Sound on the 25th August. (A similar notice to this is printed in Arctic Papers, marked C., No. 11, page 7, from Capt. Bird.)

Being desirous of obtaining observations for longitude at this place to ascertain the relative position of our winter quarters, and the weather being foggy, I laid off and on until it might clear up for that purpose, which it did on the afternoon of the 10th, when, having obtained the required observations, I left a notice of my intention to proceed to Whaler Point, or to any of the other places mentioned in my instructions to land the provisions.

I then proceeded up Lancaster Sound, with a fine breeze from the eastward, and made the land near Whaler Point on the afternoon of the 12th, without meeting with any obstruction from ice. As we neared the land, we found the ice extending off Port Leopold about 12 miles. After trying every possible means to get the ship into the harbour until 8 P.M. of the 14th, and without perceiving the slightest prospect of success, I bore up for Port Bowen, having previously sent in a boat with a notice (a copy of which is enclosed), stating that finding no prospect of getting in there, I would endeavour to land the provisions at Port Bowen or Port Neill.

Capt. Sir James Ross will already have acquainted their lordships of the provisions, stores, &c., which had been left there, and which appeared to me to remain exactly as they had been left. The housing or tent cover was very much torn and rotten, and I should say in another winter will disappear altogether. A copy of that notice I beg to enclose.

From the purport of that notice I was left in much doubt as to whether the ships had gone home; and from the appearances of the ice and the bad season last year, I deemed it advisable to land the provisions at all risks.

On the evening of the 15th of August we examined Jackson Inlet, Port Bowen, and Port Neill—all three of which places we found completely blocked up with heavy land floes of old ice. Finding it perfectly impossible to land the provisions here I again stood over for Port Leopold, and on the 16th made another attempt to enter it, but I found the ice to extend much further off from it than before.

The ice appeared to extend in a north-east direction in a solid pack from Cape Clarence to the north side of Barrow Straits, completely blocking up that strait, and also across Prince Regent Inlet to the south-east where it reaches some miles south of Port Neill. The first gale from either north or south will turn either of these bodies right across the entrance of Port Leopold, and completely seal it up.

Finding it impossible to get into Port Leopold with the ship, or even to send in a boat to remove the notice I had left there before going to Port Bowen; and, on account of the advanced state of the season, not deeming it prudent to put off any more time, where there was so little prospect of success, I threw over a cask containing a notice (a copy of which I enclose) and proceeded to the eastward with the intention of landing the provisions at some of the places indicated in my orders.

At noon of the 21st, being in lat. 73° 56′ N., and long. 83° 42′ W., two brigs were seen to the eastward, which, on closing at about 3 P.M., were found to be the *Lady Franklin* and *Sophia*, in search of Capt. Sir John Franklin. By these vessels I received their lordships' letter to me, dated April 10th, 1850, together with a "Return of the Arctic Correspondence." By that letter I was informed of the return of the *Enterprise* and *Investigator*, which made the necessity of the provisions on board being landed—more urgent. I therefore determined to do so if possible somewhere near Navy Board Inlet, which seemed to me on the passage up to be the only likely place we saw, and at which, I was informed by Mr. Penny, I should find a safe harbour.

Judging from the latter part of their lordships' letter, where I am ordered to land the provisions at Disco, or the Whale Fish Islands, that they imagined I had not got over to the western side, and considering that provisions would be far more available here, as I knew that the whole eight vessels in search of Sir John Franklin were in Lancaster Sound, I therefore told Mr. Penny that I would endeavour to land them as above mentioned, if possible; and if a safe harbour could not be found to land the whole, I would endeavour to land some for his or the other ships' use, in the event of shipwreck, and proceed with the remainder, as ordered, to Disco.

By him I received intelligence that the eight vessels came through Melville Bay in company, and that he, with his consort, the *Sophia*, parted from them on the 15th of August off Dudley Diggs; that off Cape York they learnt from the natives where we had wintered, and the *Felix* and *Intrepid* went in search of us.

During the afternoon it continued perfectly calm, which gave the two vessels an opportunity of writing home. At 2 A.M., of the next morning (the 22nd) a light breeze sprang up, when we parted company at 5.

We observed a schooner under the south land, and soon afterwards Com. Phillips came on board from the *Felix*. By him I received information that his schooner parted company off Dudley Biggs on the 15th with her Majesty's ships *Resolute* and *Pioneer*, also the *Prince Albert*; and on the 17th he parted company with her Majesty's ships *Assistance* and *Intrepid* off Cape Leopold. These vessels were to proceed up the northern shore of Lancaster Sound; he accompanied them into Wolstenholme Sound, opened the beacons we had left, and found we had sailed. He also informed us that Capt. Austin was going to Pond Bay, and from thence up the south side of Lancaster Sound, and that letters would be found in a cairn on a low point on the north side of Pond Bay.

On the morning of the 23rd, being off Wollaston Islands, I despatched a boat (in charge of Mr. Leask, the ice-master) to look for a harbour. At 2 P.M. the boat returned, and he then informed me that provisions might be landed in a bay just within the easternmost Wollaston Island; the soundings gradually decreasing. I therefore ran in and moored the ship in 4 fathoms, about a quarter of a mile from the shore. Everything was then got ready for landing the provisions, which was commenced at 4 A.M. of the following morning. The beach, which consisted of loose stones, among which large pieces of ground ice had been thrown up, rendered the landing very difficult; however with the assistance of all the spars and planks that we could collect, we managed to get them rolled up.

During the time we were landing the provisions the crew worked with great spirit, under the superintendance of Mr. John Way, the senior second master, who conducted the operation with great energy and ability, and who seemed determined that no obstacle should prevent the fulfilment of the object. He also superintended the sawing out of the canal in Wolstenholme Sound, the landing the notices in the boats at the various places, and every other duty where trust was required, highly to my satisfaction; and I cannot too strongly recommend him to the favourable consideration of the Lords Commissioners of the Admiralty for his promotion, which I consider he so much deserves. I would also further state that, whilst discharging the provisions and other stores, I was highly pleased with the zealous and active part Mr. James J. Rutter, the clerk in charge, took in assisting as far as possible the fulfilment of that important duty, especially considering the hurry and bustle which attended the process situated as we were. Not only on this occasion, but during the whole time he has been under my command, I have had great reason to be pleased with him, and would strongly recommend him also to the favourable consideration of their lordships for his promotion, which I consider he so well merits. The drawings taken by him of Wolstenholme Sound, North Star Bay, &c., are enclosed, with the charts or plans of Wolstenholme Sound, &c., which latter were drawn by Mr. Aylen, master's assistant, under my immediate superintendence.

By the evening of the 28th of August, we had succeeded in landing

the provisions as per invoices enclosed, which was a sufficient supply for lasting 100 men for twelve months, in addition to a large quantity of preserved soups, vegetables, pickles, and other comforts, and about forty tons of coals. I also landed our own housing, to cover the tea and other perishable articles, which might prove very useful in keeping our men warm, and sheltering them in the event of shipwreck.

While employed landing the provisions, three very large deer with immense horns, were seen walking about near them, at one time (and I believe there were more seen at other times); but we were far too much occupied to think of looking after them.

Everything was now completed excepting the erecting of a beacon flag-staff, similar to the one erected on the 26th, on a low point outside, and for which everything was landed ready, and it was my intention to have sent a party to erect it next morning whilst unmooring the ship; but during the night the wind shifted to the westward, and blew very hard the following morning, causing a heavy ground swell. As the gale was increasing, and the ship being on a dead lee shore, and the holding ground very bad, the bottom consisting of loose stones, I could not venture to weigh the anchor. I therefore deemed it prudent for the safety of the ship to slip the cable at the fifth shackle, and proceed to sea. Fortunately a stone beacon, or cairn, was erected near the provisions, with a pole in the centre of it, in which was deposited a cylinder containing an invoice of all that had been landed. This beacon is in lat. 73° 44′ N., and long. 80° 55′ W.

Having only about three months of the North Star's own provisions remaining on board, and considering it would be running far too great a hazard to attempt to leave Navy Board Inlet with so small a quantity, owing to the possibility of being caught in the pack on the way home, and thereby detained another winter in the Arctic Regions, I therefore desired the clerk in charge to retain a sufficient quantity of those shipped on board for the expedition so as to complete up a twelvemonth's supply.

During the time the men were employed in landing provisions, also whilst sawing and getting the ship out of Wolstenholme Sound, I found it necessary to issue to the people, actually employed, an extra ration of preserved meat and spirits, and half a ration extra of bread, as the usual allowance is not sufficient to enable men to continue for so many hours at such hard work in this cold climate.

At noon of the 29th we passed Cape Hay, where I intended to leave a notice of where the provisions had been landed; but as the beacon erected by ourselves on the outer point of Navy Board Inlet was so plainly seen from it, and there being too much sea to admit of a boat's landing, I did not deem it necessary to wait, and proceeded on to the eastward.

On the afternoon of the 30th, I sent a boat into Possession Bay to leave a notice (as enclosed) of where the provisions were landed, and also to get observations for longitude. On the boat's return, I was informed that the notices left by ourselves on the 10th of August, and

those from the *Enterprise*, were removed, and the enclosed (which I beg leave to forward) put in their place.

I also observed a schooner south-east of us, but as it was calm, we did not close with her till about four o'clock the next morning, when I sent a boat on board, and found it to be the *Prince Albert*, Commander Forsyth, on his way to England. The only additional information I received from him was, he left Her Majesty's ships *Assistance* and *Intrepid*, and the *Lady Franklin*, *Sophia*, and *Felix*, all well, in Wellington Channel.

On the afternoon a breeze sprung up, and we soon ran out of sight of him. It was my intention to have kept company with him until we had crossed the pack, but he sailed so badly that I thought it better to proceed to Pond Bay, and there land notices of where the provisions were landed, after which, if I had met him, I would, if necessary, have taken him in tow.

On the morning of the 3rd of September, we were off the north entrance of Pond Bay, and the weather being calm, I anchored in 45 fathoms, as I found the current was setting out of the inlet and a number of bergs aground near us.

A boat was then despatched to examine the north shore of the inlet, in search of the letters that we were informed by Sir John Ross were deposited there; but after examining its north side for twenty miles, could not find any appearance of a cairn. Two notices similar to that left at Possession Bay were landed about ten miles apart, and placed in the centre of a cairn of stones.

At eight P.M. the boat returned, and we weighed the kedge, and proceeded to the south-east. I regret not having met with Capt. Austin, that I might have been able to inform him of where the provisions were landed. However, I have no doubt Mr. Penny will see him, who will give him the necessary information of my intentions, which he promised to do before parting company.

At four A.M. of Sunday, the 8th of September, being in lat. 71° 40′ N., long. 71° 10′ W., the fog which we had had for the last four or five days cleared away, and we observed ourselves close to the pack or middle ice, which being loose, we immediately entered, and got through it by ten A.M., without much interruption, it being small and all of last winter's formation. Its width I estimate at about twenty-two miles. We then stood to the south-east with a fine fair wind.

On the 9th at noon, when in lat. 70° 2′ N., and long. 62° 20′ W., a pack or body of very heavy ice was observed ahead, and which compelled us to haul to the north-east for about twenty miles, and we then stood fifty miles true east, when we again shaped our course down the Straits, since which time we met with no pack, but passed a number of bergs.

We got to the southward of Cape Farewell, on the afternoon of the 14th of September, but the wind hanging to the eastward, we did not cross its longitudinal meridian until the morning of the 18th of September, being then in lat. 55° 30′ N.

I may here mention, that although the ship was so long beset last year in the ice, and has since passed through so much of it, she has never once received a nip, and is now as strong and tight as when she left England.

I regret exceedingly not being able to fulfil my instructions of last year, and can only assure their lordships that no exertions were wanting on the part of myself, the officers, and crew, to do so. Had last season been as favourable as the present for the navigation of the Arctic seas, I have no doubt I should have found the *Investigator* or *Enterprise*, before they left their winter quarters.

The *North Star* passed Scilly Light at midnight of the 26th inst., and arrived at Spithead at eleven A.M. this day.

In conclusion, I beg to express to their lordships, my entire satisfaction of the conduct and unwearied exertions (when required) of every officer and man under my command, and more particularly Mr. John Way, sen., second master; Mr. James Rae, assistant-surgeon; and Mr. James J. Rutter, clerk in charge, each of whom I have already spoken of in this despatch; they are all of long standing in their present rank; I therefore earnestly trust their lordships will grant them the promotion they have so well earned.

I have the honour to be, sir,
Your most obedient humble servant,
J. SAUNDERS, *Master and Commander.*

---

COPY OF A NOTICE PLACED IN EACH OF THE BEACONS ERECTED IN THE NORTH STAR BAY, WOLSTENHOLME SOUND.

"*North Star Sound, Wolstenholme, April* 15, 1850."

"This paper is placed here to certify that her Majesty's ship *North Star* was beset at the east side of Melville Bay on the 29th July last year, and gradually drifted from day to day, until 26th of September we found ourselves abreast of Wolstenholme Island, when, perceiving the ice a little more loose and the Sound perfectly clear, made all sail and pressed her through it, anchoring in the lower part of the Sound that evening; and arrived in this bay on the 1st October, where she remained throughout the winter. It is my intention to leave as soon as the breaking up of the ice will permit, and prosecute my voyage in search of the Arctic ships.

(Signed) "JAMES SAUNDERS, *Master and Commander.*

*Copy of a Notice landed at Whaler Point, August* 14*th*, 1850.

"*Her Majesty's ship North Star, off Port Leopold, August,* 14, 1850.

"This paper is placed here to certify that her Majesty's ship *North Star* was beset at the east side of Melville Bay on the 29th July last year, and gradually drifted from day to day until, on the 26th September, we found ourselves abreast of Wolstenholme Sound, when, perceiving the ice a little more loose, and the Sound perfectly clear, made all sail, and pressed her through it, anchoring in the lower part of the Sound that evening, and arrived in North Star Bay, Wolstenholme Sound, on the 1st of October, where she remained throughout the winter until the 1st of August, 1850,

when she got liberated, and proceeded to the westward, passing through the pack in the centre of Ross Bay, and reached Possession Bay on the evening of the 8th August, 1850, and arrived off Port Leopold on the 13th August, 1850. The season being so far advanced, and there being no prospect at present of getting into the harbour to land the provisions, I shall therefore proceed to land them either at Port Bowen or Port Neill, according to circumstances, as their lordships' orders for my return to England this year are so peremptory.

(Signed) "J. Saunders, *Master and Commander.*"

*Copy of the Notice found at Whaler Point by her Majesty's ship North Star, when she called there on the 14th August,* 1850.

"*Port Leopold, August,* 15, 1850."

"The provisions and stores landed here from her Majesty's ships *Enterprize* and *Investigator*, being intended for the use of Sir John Franklin and his party, it is earnestly desired that any other persons (not in absolute distress) who may find them will leave them undisturbed, and will return this paper into the cylinder which contains it, as it is intended to inform Sir John Franklin or any of his party who may arrive here, the *Enterprize* and *Investigator* having wintered in this port, and having sent parties during the spring in every direction in search of, but without obtaining tidings of them, are now about to proceed to sea with the view of continuing the examination of the north shore of Barrow Straits, as far to the westward as the season may permit, and that they will endeavour to touch again at this port before they shall depart for England. But this latter part of the plan of operations must greatly depend upon circumstances of weather and season, which, at present, appears by no means favourable for its successful execution.

(Signed) { "Edwd Bird, *Capt. H.M.S. Investigator.*
"Jas. C. Ross, *Capt. H.M.S. Enterprize.*"

*Copy of two Notices thrown overboard from her Majesty's ship North Star, off Port Leopold, August* 16, 1850.

"*Her Majesty's ship North Star, off Port Leopold, August* 16, 1850.

"Her Majesty's ship *North Star* crossed over on the evening of the 14th August, and found Port Bowen, Port Neill, and Jackson Inlet completely blocked up by a thick land floe, rendering it impossible to land the provisions for the Arctic ships. She, therefore, has put back to this port, and, not being able to enter, will now endeavour to land them at one of the places mentioned in the Admiralty order—viz, Cape York, Cape Crauford, Cape Hay, Possession Bay, Pond Bay, or Agnes Monument; but, on account of the lateness of the season, will not be able to return to say at which of the places.

(Signed) "J. Saunders, *Master and Commander.*

"Her Majesty's ship *North Star* arrived off Port Leopold, Cape Clarence, with provisions for the Arctic ships, on the 13th August, 1850, but finding the harbour blocked up by heavy loose floes, could not enter. She then steered over for Port Bowen, Jackson Inlet, and Port Neill, but could not enter either of those places from their being blocked up by heavy land floes. The *North Star* came back to Port Leopold again on the 16th August, 1850, when she found the place still so blocked up with ice that she could not enter. The dispatch accompanying this will give information as to my

further intentions. This was thrown overboard (and put into a cask) on the 16th August, 1850. Port Leopold, bearing true N.W. ½ W.—four leagues. It is requested that this paper may be forwarded, if found, to the Secretary of the Admiralty, London.

(Signed) " J. SAUNDERS, *Master and Commander.*

" Landed at Navy Board Inlet, this 27th day of August, 1850, from her Majesty's ship *North Star*, Mr. James J. Rutter, clerk in charge, the slop clothing, stores, &c., undermentioned—viz. (being for the use of the Arctic Expedition): Carpet boots, 124 pairs; biscuit, 12,768lb.; brandy (in 378 bottles), 67 gallons; rum (over proof), 835 68 gallons; red wine (port), 34 4.8 gallons; white wine (70 gallons); beef, 744 8lb. pieces; pork, 1,948 4lb. pieces; pemmican (about), 1,460lb.; flour, 26,736lb.; suet, 448lb.; currants, 112lb.; peas, 77 bushels; oatmeal, 8 bushels; sugar, 5,264lb.; chocolate, 2,093lb.; tea (in 8 whole cases), 663lb.; vinegar, 54 gallons; tobacco, 1,628lb.; soap, 1,292lb.; preserved meats—roast beef, boiled beef, stewed beef, beef and vegetables, seasoned beef, roast mutton, boiled mutton, soup and bouillé (sorted), 13,595lb., , soup—common, vegetable, ox-cheek, gravy, and concentrated, 3,778lb.; lemon juice, 2,232lb. 31 cases, 558 bottles; preserved vegetables—turnips, green peas, carrots, beet root, parsnips, mixed vegetables (sorted), 3,802lb.; candles (composition), 190lb.; ditto moulds, 390lb.; ditto dips, 210lb.; sperm oil, 140 gallons; lignum vitæ, 1400lb.; rice, 136lb.; preserved potato, 1,344lb.; preserved milk, 136 pints; Scotch barley, 790 lb.; black pepper, 54lb.; salt, 140lb.; mustard, 162lb.; dried yeast, 36lb.; pickles—onions, 449lb.; walnuts, 495lb.; cranberries, 611½lb.; cabbage, 420lb.; mixed pickles, 438½lb.; patent fuel, about 38 tons; fire wood, 3,400lb.

(Signed) " JAMES J. RUTTER, *Clerk in Charge.*

*Copy of a Notice landed at Possession Bay. Two similar ones also were left at Pond Bay.*

" *Her Majesty's ship North Star, off Possession Bay, August* 30, 1850.

" This paper is placed here to certify that provisions have been landed on the east side of the entrance of Navy Board Inlet, just within the Easternmost Wollaston Island, from her Majesty's ship *North Star*, sufficient (of every description) to last 100 men for twelve months, being for the use of the ships in search of Sir John Franklin and his party. It is, therefore, earnestly requested that no one will remove them except in cases of actual distress. It is further requested that this paper be replaced where found, A beacon (a cask on a pole) is erected at the entrance of Navy Board Inlet. and about two miles north from where the provisions are landed, and must be seen in clear weather by any ship passing up the south side of Barrow Strait. There is also a small stone beacon or cairn erected near the provisions, there not having been time to erect a flag staff there likewise, the *North Star* having been obliged to slip her anchor and put to sea on account of a gale of wind coming on, on the morning of the 29th of August, 1850. She is now on her way to England. The provisions are landed in lat. 73° 44′ N., long. 80° 55′ W.

(Signed) J. SAUNDERS, *Master and Commander.*

*Document found at Possession Bay by her Majesty's ship North Star, 30th August*, 1850.

" *Her Majesty's ship Resolute in Possession Bay, August*, 1850. Lat. 73° 30′ N., Long. 77° 20′ W.

" Captain Austin having left, in *Pioneer*, to examine Pond Bay at mid-

night on the 17th instant, this paper is signed by the senior lieutenant. Captain Forsyth, in *Prince Albert*, left us on the 17th at noon, to examine Cape Hay, visiting Wollaston Island and Cape Charles York, on his way to Regent Inlet. Parted company from *Assistance*, *Intrepid*, and *Felix* on the 15th, and Captain Penny's *brigs* the day before. All well and in most excellent spirits.

"ROBERT DAWES ALDNISS,
"*Senior Lieutenant and Commanding Officer of her Majesty's ship Resolute.*

"Whoever finds this paper is requested to forward it to the Secretary of the Admiralty, London, with a note of the time and place at which it was found. Quiconque trouverace papier est prié d'y marquer le tems et lieu ou il l'aura trouvé, et de le faire parvenir au pultot au Secretaire de l Amirauté Britannique a Londres.—Quienquiera hallara este papel, esta pedido de enviarlo al Secretario del Almirantazgo, a Londres, con una nota del tiempo y del lugar en los quales se hallo el dicho papel.—Enhver som finder dette papiir, anmodes at indsende samme ufortovet til Regjeringen i Kiobenhavn eller i Stockholm, leller til Secretairen af det Brittiske Admiralitet i London, med bemærkning angaaende, tiden naar, og stedet hvor papiret er fundet.—Een ieder die dit papier mogt vinden, wordt hiermede verzogot, om het zelve, ten spoedigste, te willen zenden, aan den Heer Minister van de Marine der Nederlanden in 'S Gravenhage, of wel aan den Secretaris der Britsche Admiraliteit te London, en daar by te voegen eene nota, inhoudende de tyd en de plaats alwaar dit papier is govonden geworden."

Descriptions in the Russian language were also left.

*Copy of the Notice placed in the beacon at the outer point of Navy Board Inlet.*

"*Her Majesty's ship North Star, east end of Navy Board Inlet, within Wollaston Island, 26th August*, 1850."

"Provisions have been landed at the bottom of this bay from her Majesty's ship *North Star*, sufficient (of every description) to last 100 men for twelve months, for the use of the ships in search of Sir John Franklin and his party. It is therefore earnestly requested that no one will remove them, except in cases of actual distress. It is further requested that this paper be replaced where found.

(Signed) "J. SAUNDERS, *Master and Commander.*

*Copy of the Notice put up in the Cairn, near the Provisions.*

"*Her Majesty's ship North Star, east end of Navy Board Inlet, within Wollaston Island, 26th Angust*, 1850."

"The provisions landed here from her Majesty's ship *North Star*, sufficient (of every description) to last 100 men for twelve months, for the use of the ships in search of Sir John Franklin and his party. It is therefore earnestly requested that no one will remove them, except in cases of actual distress. It is further requested that this paper be replaced where found.

(Signed) "J. SAUNDERS, *Master and Commander.*

[We have the satisfaction of adding that the three officers so favorably mentioned by Mr. Saunders in his letter to their Lordships' have been promoted.—ED.]

The following memorandum was brought home by Commander Forsyth, of the *Prince Albert*:—

(*General Memorandum.*)

*Her Majesty's ship Resolute, at sea, July 25th*, 1850.
Lat. 75′ 25° N., Long. 61′ 34° W.

In the hope that the expedition is now not far distant from the North Water, and although the nature and movements of the ice are so varied in different seasons as to prevent any determination of plan until the moment foracting arrives, it becomes desirable that what is contemplated in the prosecution of the charge assigned to me, the accomplishment of which we all have so much at heart, should be made known.

I, therefore, here promulgate it, and it is to be received as an addenda to the instructions issued by the Lords Commissiouers of the Admiralty, and carried out with all the earnestness and zeal that so highly-important a service demands.

The circumstance of a tender being attached to each ship establishes in a great measure the security and confidence necessary in the prosecution of this service, which would not be felt by one vessel alone, and admits of a partial separation for the season, to enable a more extended search being made.

When maturely considering the most probable route of the missing expedition in its return by way of Lancaster Sound, or of any of the crews that might have left their vessels, it appears that they would have attempted to reach Pond Bay, either during the late autumn of last year or the earliest moment this spring, with the hopes of meeting the whalers in the present season.

Therefore, the *Resolute* and her tender will proceed to Pond Bay, and, if it can be done, communicate with the natives there; then, as circumstances admit, search along that shore on her way to Whaler Point.

The *Assistance* and her tender will commence the search at Cape Warrender, continuing it along the north shore to Wellington Strait, examine its shores and neighbourhood, and proceed as far up it as is practicable and sufficient to fully satisfy that it has not been the course of the missing ships. As Mr. Penny, in his *Success*, will traverse the northern part of this strait, there is good reason to hope that so very important a doubt will be set at rest.

Should any record be found of Sir John Franklin having proceeded in that direction, then it is to be made known to the *Resolute* by depositing a notice thereof at either Cape Reilly or Cape Hotham, and the search proceeded with most vigorously, in which the *Resolute* will hasten to join at the earliest moment.

But in the event of no record being found there, and it is most desirable and important that the ships should meet, or at least communicate results of labours to this point, then the rendezvous to be between Capes Rennell, Hotham, and Riley; the *Resolute* standing to the northward from midnight to noon, and to the southward from noon to midnight, in the meridian of Cape Hotham.

But should the examination of Wellington Strait be speedily accomplished without traces being found, and the *Resolute* not having reached the rendezvous, then, in order to save time, the *Assistance* will take up the search to Cape Walker, examining its neighbourhood thoroughly as far as is practicable; and failing to obtain any information there, or to meet the *Resolute*, will then continue it on the north shore of the Parry Islands.

And with a view to have a fixed place, where there is good reason to

expect that vessels may reach, should the rendezvous, on account of time, fail for communication, then a full account of proceedings, with any change of plans called for from circumstances not anticipated here, must be deposited at the southern extremity of Griffith Island.

In the event of the *Resolute* first reaching the rendezvous between Capes Rennell, Hotham, and Riley, then all endeavours will be made to prosecute to the entrance of Wellington Strait, touching at Cape Riley and Cape Hotham, in order, according to circumstances; and failing to meet there with information of the *Assistance*, or traces of the missing expedition, will then proceed towards Capes Rennell and Walker; and not finding traces in that direction, will continue the search in the south-west, towards Melville Island, where it would be expected to take up winter quarters. But if, on the contrary, traces are found, then the object of reaching Melville Island would be abandoned, and winter quarters taken in the south-west, according to circumstances.

Should *Assistance*, on reaching Cape Hotham, discover that *Resolute* has has preceded her, and gone on without finding any traces, she will make the best of her way in the direction of Cape Walker; and, failing to meet with *Resolute* in that neighbourhood, or any record, will, without delay, carry on the search along the north shore of the Parry Islands.

The *Resolute*, failing to reach Melville Island to winter, will endeavour to communicate in early spring with Winter Harbour; and, should *Assistance* similarly fail, she must do the same, independently of other searching parties that may be despatched, as it is most important that the results of the several examinations made up to this period should be communicated.

On every occasion of visiting the shore a record must be deposited, comprising every necessary particular, taking as a guide my minute of the 3rd instant, and being careful to note that a considerable supply of provisions and fuel is deposited at Whaler Point, on the western entrance of Prince Regent Inlet.

With a view to attract the attention of any of the missing persons, care must be taken that, during the periods of darkness, and when fogs prevail, periodical signals are made,—rockets, blue lights, guns, muskets, maroons, drums, gongs, bells, and whistles, being employed as most suitable, according to circumstances.

When in open water a document is to be occasionally thrown overboard, containing the necessary particulars as detailed in the printed papers supplied.

The substance and spirit of their lordships' orders under which I am acting must be the guide for any point not herein provided for, or wherever doubt arises—as they will govern all the operations of the *Resolute*.

(Signed) HORATIO T. AUSTIN,
*Captain, and in charge of the Expedition.*

*To Captain Erasmus Ommanney. her Majesty's ship Assistance, and the Lieutenants commanding her Majesty's screw tenders Pioneer and Intrepid.*

*Extract of a Letter from John Rae, Esq., Chief Factor, Hudson's Bay Company, to Sir John Richardson.*

*Portage La Loche, 30th July*, 1850.

My dear Sir John.—I have now the pleasure to acknowledge your several kind and interesting favours of 15th August, from Norway House; of 18th and 19th, from Lake Winipeg; and 6th September, from Rainy Lake, all

of which reached me on the 5th of April, by our usual winter express. By the government express I received three other letters from you on the 25th of June, and two more by the *Esperance*, on the 25th inst.—the latest being dated on the 3rd of April.

A list of all the articles brought from Fort Confidence to Fort Simpson was made, out, and credited to the expedition; but finding that all, or greater part would be again required for the contemplated expeditions, I do not send out any accounts of them.

The quantity of dry meat remaining at Fort Confidence before I left was 2,200 pounds, the best of which, amounting to 1,600 pounds, was brought away by us, and the remainder being poor stuff, was given to the Indians, as our boat could contain no more. Of the 1,600 pounds 850 were used on the voyage to Fort Simpson and Slave Lake, leaving 750 available.

You are aware that I was, if possible, to resume my search this summer for the unfortunate missing navigators. A government express, conveying instructions to this effect, met me on the 25th ult., one day's journey below Slave Lake. Commander Pullen being in company with his party received orders to the same effect, the route pointed out for him being to the westward of the Coppermine, as far as Cape Bathurst, and from thence out to sea in the direction of Banks Land—rather a hazardous experiment with open boats. As the stock of provisions would not admit of two expeditions being equipped, Pullen (who is much better fitted for such an undertaking in almost all respects than I am) had the preference, and will take with him pemmican and dry meat to the amount of about 4,500 pounds, which is to be stowed in one of our large batteaux, and in one of the *Plover's* boats. So small a quantity of provisions is left at Fort Simpson that I do not know how our fall business is to be carried on. Two of the government men who were unfit for active duty returned to England, and three of the Company's men, including Niel M'Leod, have been engaged in their place.

In order, therefore, that the expenses incurred may not be entirely thrown away, I have determined to return to Bear Lake, and pass the winter at Fort Confidence; to build two boats there, similar to those of Dease and Simpson, and with them attempt, next summer, to reach Wollaston or Victoria Land, *via* the Coppermine. That the time should not be unprofitably spent, I shall, with two or three men, visit the mouth of the Coppermine this fall, and probably go as far as the bay where your boats were left in 1848, to see whether a "cache" of pemmican, deposited there last year, is still safe. This I doubt, as the stony nature of the ground was unfavourable to perfect concealment. Should we be fortunate in procuring provisions during the winter, and our party be healthy in the spring, I shall endeavour to proceed twelve or fourteen days' journey to the northward, over the ice, in the month of May next; and in the event of being unsuccessful, as in all probability we shall be, the boats will be ordered to meet me at the Kendall; and should the ice permit, I shall, with them, endeavour to blot out the memory of my last year's failure. In forming this plan, I have been actuated by but one feeling—namely, the desire of pursuing the route in which there is the greatest probability of gaining some information, or finding traces of the gallant navigators or their vessels. To facilitate this I have requested Mr. Hargrave to procure an Esquimaux interpreter from Churchill, to replace poor Albert, and to forward him by winter to Mackenzie River; also to send the Halkett's boat that I had, with one at Repulse Bay. Capt. Pullen requested me to make over all the instruments of your expedition to him, as soon as he was aware of his returning to the coast. This I at once agreed to do, as he may want most of them at winter quarters.

I cannot say much in favour of the men that have been engaged for me.

They are all, without exception, either Indians or half-breeds from Red River—good enough men in their way, but not well fitted for what we have to do.

I omitted to mention in the proper place that when the winter packet arrived, and I received your instructions respecting the establishment of an Indian party on the Coppermine, the Martin Lake chief, "Tecoon-ne-betah," with his party was at Fort Simpson, and I had no difficulty in engaging them to pass the summer at certain stations in the route between the Kendall and the Bear Lake. The leader received three notes, which were to be delivered to any Europeans they might meet, in which the strangers were requested to put themselves wholly in the hands of the Indians, who would guide them by the best roads to the nearest post, and feed them by the way. In the event of not seeing any parties, other notes, with a rough chart of the best route, were supplied, well wrapped in oil-cloths, which were to be placed on poles in conspicuous stations.

Having arrived here long before *Esperance*, and there being ten cargoes to take over the Portage, our provisions would have been done 'ere this, had I not, fortunately, brought two nets, with which we catch as many fish in the lake as feed half our party.

My companion at Bear Lake will be Mr. Mackenzie, whom you saw at Fort Norman. He is a fine active fellow, and a good shot. I have promised him £130. per annum, which I do not think too much.

I am, yours, most respectfully and truly,

(Signed) JOHN RAE.

---

## ARCTIC VOYAGE OF THE PRINCE ALBERT.—*Com. Forsyth, R.N.*

[In our August number the departure of the *Prince Albert* on this voyage is recorded along with some interesting particulars relating to her crew, officers, and equipment. The intention of Lady Franklin in sending her was to fill up the last place remaining unexplored in a north-west direction from where Sir John Ross left the *Victory* in the Gulf of Boothia. Her track in Barrow Strait is shewn on the little chart attached to this number, as well as her attempt to get down Prince Regent Inlet and her course over to Cape Riley where the "*traces*," of Sir John Franklin's party were found. It also shews the Wellington Channel and Cape Hotham to which Capt. Ommaney was hastening for further accounts when the *Prince Albert* came away.]

THE *Prince Albert*, ketch of 89 tons, C. C. Forsyth, R.N., Commander, has just returned from Barrow Straits and Prince Regent Inlet, bringing accounts of the whole of the Arctic fleet, up to the 25th of August. She has not been successful in the main object of her voyage; but has, nevertheless, brought some tidings which may, eventually, be found leading to the issue so much desired. She has had a most remarkable run home from Wellington Channel, not having been once delayed by ice, and seeing scarcely any but bergs since leaving Prince Regent Inlet. The following are the particulars of her voyage.

On Wednesday, June 5th, the *Prince Albert* left Aberdeen, and put

into Long Hope on Friday the 7th, where she remained during a heavy gale from the westward, until Sunday morning the 9th. From this date, only a slow progress was made towards Cape Farewell in consequence of calms, foul winds, and heavy gales. During one entire week, when about 300 miles from the coast of Greenland, the wind blew incessantly against her with such fury, and accompanied by a very high sea and snow storms, that she was driven back some distance. Again when near Cape Farewell, another tremendous gale was experienced, the sea running fearfully high. For the third time the ship had to be hove to, and proved herself, throughout the whole passage a most admirable sea boat.

On the 2nd July, the first iceberg was passed, and in the same morning the land on the south coast of Greenland was observed, at a distance of about 60 miles. The 6th brought a fair wind, and enabled her to run better than on any previous day. The latitude was then 61° 02′, and longitude 52° 13′. Calms and foul winds succeeded, during which slow progress was made along the coast of Greenland, its lofty and magnificent mountains occasionally presenting a near view. Several bergs were passed, but no large body of ice, until, with a strong and favorable breeze, and thick weather, the ship suddenly, on the 11th at 8h. 30m. A.M. came upon a heavy stream of ice. It was blowing hard, with sleet and rain, but it was necessary to run through it at once, and this was accomplished in an admirable manner. A course was then shaped by Capt. Forsyth for Whale Fish Islands, but the gale increasing, with heavy snow storms, and a high sea, the vessel was again hove to. During that night great caution was necessary in consequence of the many icebergs which every now and then were seen looming suddenly through the thickness of the weather. The next morning the high land of Disco was observed, and the *Albert* had to wear off several times to avoid too close an approach. When the gale abated it was found that the ship had been driven to leeward of Whale Fish Islands, and as the wind continued fair it was determined not to delay, but proceed at once to Upernavick.

The 13th was calm and clear, the sun being observed above the horizon at midnight. An altitude was taken, which showed 3° 12′ as the height of the sun, and the latitude 71° 18′ N.

On the 15th the *Truelove*, Mr. Parker, and the *Anna* were spoken off Black Hook. From Mr. Parker, Capt. Forsyth learned news of the other vessels in the ice, and that the whalers were all returning to the south, being unable to get through Melville Bay.

Wednesday, July 17th, letters were landed at Upernavick; and on the following day with light winds and thick weather, streams of loose ice were entered. On the 20th, the *Prince Albert* was completely beset for a few hours, but the floes opening into a lead she found clearer water, sailing among numerous bergs and sconce pieces, without however, entering anything like a broad channel. The next day, while threading through the various intricate passages which were visible, she came up with Sir John Ross in the *Felix*, and made fast to the ice close to him.

Monday, the 22nd, was very foggy, and the rigging was all coated with icicles hanging very thickly. No attempt to move could be made until the evening, when, the weather clearing a lead was observed, which was immediately taken, both vessels keeping in company, the *Prince Albert* however, frequently obliged to shorten sail or heave to for the *Felix*. The following morning spoke seven whalers all returning to the south, after a vain attempt to get through the bay, which they declared was more than usually difficult this season. They gave the information that Captains Austin and Penny's ships, were together in the ice not far to the northward. The seven vessels passed through a passage in the ice in tow of their boats, and pursued their course in a tortuous direction to the southward.

The 24th and 25th, were employed in tracking, warping, and towing the two vessels through small lanes of water, and around sconce pieces to the northward. On the latter day Capt. Austin's ships were seen close beset in the ice to the N.N.W.

On the 27th the *Felix* was caught by the ice and very nearly nipped, but fortunately rose to the pressure.

The *Prince Albert* only hauled astern in time to save a similar squeeze. The next two days both vessels were close beset, and in great danger; not a lane of water being anywhere visible, and the weather very dark and tempestuous, the wind blowing hard from the south-west.

On Thursday, the 1st of August, the ice slackened, and by dint of great exertion in heaving, warping and tracking, some little progress was made through a narrow and broken channel of water. Found that young ice began to form rapidly at night. The 2nd enabled them to make another mile to the eastward, after great exertion. This day, the two American vessels were seen to the southward following up the leads already taken. Throughout the 3rd, very heavy ice set in upon both ships, the *Prince Albert* and the *Felix*, being several times in extreme danger. The pressure was very great, and large masses were crushed up under the stern of the former with terrific force, and proximity. She stood the pressure well, heeling over once to it on the starboard side, but it was evident that should the heavy floes still keep setting in she would not be able to resist them throughout. Preparations were made on board of both vessels for taking to the ice on the instant in case of need. Bags of bread, pemmican, spirits of wine, &c., for fuel and other necessaries were got ready to throw on the floe, the moment the heaviest squeeze came. A few necessary articles of wearing apparel were also prepared, and put together for the same purpose. The boats had been previously placed there in safety. Fortunately the largest and heaviest floe turned round upon the hummocky pieces which beset the vessel, and thus saved both ships from being inevitably crushed in the collision which, soon after, took place only a short distance astern.

On Monday morning, the 5th, the *Prince Albert* made a bold push to extricate herself from the dangerous position she was in. The ice

appeared to slacken a little to the eastward, and the vessel was, accordingly hove through some heavy pieces; and, finally, by dint of incessant labour, throughout, got into something like clear water by midnight. The *Felix* was now far astern endeavouring to follow in the same direction, but on the ensuing day, when the *Prince Albert* again made sail in some broad lanes of water, both vessels soon got out of each other's sight, the latter being far ahead. On the 7th an enormous berg completely blocked the only passage open, and here the two vessels again came together. The 9th enabled them to force through a narrow crack in the ice to some more clear water where the *Prince Albert* again took the lead, and at about 10 A.M., passed Captain Austin's ships close beset to the westward. The following day, however, while calm the Government vessels, having succeeded, by extraordinary labour, in extricating themselves, came up in tow of the two steamers. A communication was held with them and letters delivered.

Sunday 11th, the *Prince Albert* was again beset, in thick foggy weather, with appearances of a gale. An opening presented itself with merely two narrow necks of ice intervening, and the ship was therefore sent down upon it under a press of canvass to bore through the barrier. She performed this admirably, but the opening was obstructed at the other end by huge hummocks and small bergs crushed up in a frightful manner. After two attempts a passage was cleared in another direction at 2h. in the morning of the 12th, and about 8 A.M. she got up with Captain Austin's ships and the *Felix* which had succeeded in keeping clear.

Here Captain Austin with great kindness, and which reflects the highest credit upon himself and the government under whose orders he acted, gave both of the diminutive little vessels engaged in the same cause as himself, a tow. Clear water was, for some time, met with, but a barrier again arising, the screws were set to work, and by blasting and rushing pell mell at the impediment it was removed. Never was there such a sight witnessed before. The power of science successfully turned against the heretofore impregnable barriers of ice which intercepted the free passage of ships working their way through!

Mr. Penny's ships had previously, left Captain Austin's and worked away to the north-west. At noon on the 13th, a communication was made with some natives on Cape York, which eventually, after much misunderstanding of the truth, led to a knowledge that the *North Star* had wintered at Wolstenholme Sound the past year. Mr. Penny's ships were here in company again and letters were delivered to him.

On the 14th at midnight the *Assistance*, *Intrepid*, and *Felix* parted company to go and examine about the *North Star*. This was off Cape Dudley Diggs. The *Prince Albert* continued in tow of the *Resolute* and *Pioneer*, with a now, open sea, until the 17th at 2 P.M. when the two latter cast off and proceeded to Pond Bay, while the former went on direct towards Cape Hay. The next morning land was made, which proved to be close to Cape Liverpool, in Lancaster Sound. The weather was very thick and foggy, and continued so until Monday morning the

19th when a favourable breeze sprung up and enabled her to run rapidly along the land. The coast was well examined, but the wind increased, and prevented a boat going ashore until reaching Wollaston Island when an officer was sent to inspect a cairn of stones observed on the summit. Nothing, however was found, and the vessel again proceeded on her course. Towards evening the gale increased, and the ship had to heave to; several bergs and small streams of loose ice being occasionally seen. The next day sail was again made in thick weather, unable to see the land, but no impediment from ice. At midnight the high land of Prince Leopold Island was seen, and at 3 A.M. of the 21st the *Prince Albert* was off Whaler Point, being the first vessel there of any that had left England this year, and, as was soon found, only a few days later than the *North Star*, which had left home a year previous. A barrier of ice was seen to extend across the mouth of the harbour, and Mr. Snow was sent by Capt. Forsyth in the Gutta Percha Boat to examine it and see if an entrance could be effected by the ship. This was found impossible as the late gale, now subsided, had thrown a vast accumulation of loose ice, and small bergs upon the entrance leading to the harbour. Deeming it important to land, himself, if possible and examine for any tidings, he pushed the boat *through* and *over* the ice, and got ashore at about 5 A.M. The house left by Sir James Ross, was found to be rent and torn by the winter gales, but nothing else appeared to have been disturbed. The cylinders were examined, when it was ascertained that the *North Star* had been there in her boat on the 13th inst., but was unable to land her provisions on account of the barrier of ice. Mr. Snow examined the notices left by Sir James Ross, and made a search everywhere around for traces of any other parties, but finding none, he left a hastily written notice of his visit and returned, with very great exertion and labour in getting through the ice again, to the ship at 8 A.M. Meanwhile the *Assistance* had hove in sight, and spoke the *Prince Albert* but finding a boat was on shore examining, she hauled off and stood across to the north shore of Barrow Strait.

The "*Prince Albert*" now continued her course, to all appearance without likelihood of any interruption up Prince Regent Inlet. Elwin Bay and Batty Bay were found to be blocked with ice, but so clear did the Inlet appear that great hopes were entertained of getting to Brentford Bay (winter quarters) on the next day. The following morning however, put an end to these hopes, by discovering, as soon as a dense fog had lifted, that the ships had run thus far in a "bight," and that heavy hummocky ice extended in every direction ahead and around her. It was impossible to get further in that direction. The vessel was then off Fury Beach, as far and beyond what any other ship had gone for the last twenty years. It was deemed necessary to make a retrograde movement, and the opinions of the two ice-masters being given, Capt. Forsyth decided upon visiting some other spot where traces might be found. Cape Riley was the place selected. On the same evening Mr. Snow was despatched in the Gutta Percha Boat to examine the coast from near Batty Bay to Leopold Harbour where he had orders to land,

and leave a fresh notice of the movements of the vessel. He, accordingly, left the ship at 9 P.M. and commenced a search as close along the coast as the ice would permit for thirty miles, arriving at Leopold Harbour about 5 the next morning. Here he found the same difficulties as he had met before, and now increased by still heavier bergs and floes moving about in restless agitation. The *Prince Albert* was out of sight, it having been calm, and as the the men and himself were all worn out by the labour of the night he deemed it most prudent to effect a landing if possible. This was done under most difficult circumstances, for the boat had to be dragged across from piece to piece, and carried between loose masses by the men bodily handling her, while themselves and Mr. Snow had to spring from floe to floe, and up to their waist in water, almost every moment.

During the whole forenoon they remained at Whaler Point awaiting the appearance of the ship. While the men slept upon the hasty and rough pallets they had made, Mr. Snow well examined all the locality; and finally at 2 P.M. leaving a fresh and more explicit notice, he departed, upon the ship coming in sight to the southward. The ice in the mouth of the harbour had considerably slackened, and there was, therefore, but very litte difficulty in getting out. At 3 P.M. they got on board, and the *Prince Albert* stood out for the middle of Prince Regent Inlet. Soon afterwards a brigantine was observed on the outside of the ice, and at 7 P.M. Capt. Forsyth and Mr. Snow went on board the the American discovery ship, *Advance*, Lieut. De Haven. Found all well on board and in high spirits. The second American vessel, the *Rescue*, it was stated, had proceeded on to Wellington Channel, whither the *Advance* was now going to meet her. At midnight both vessels were running through streams of very heavy ice across Barrow Straits toward Cape Hurd. Saturday 24th was a fine day with a foul wind and clear water. At noon the *Prince Albert* was off Cape Hurd, and, thence beat up to windward close inshore to Cape Riley. Mr. Penny's two vessels were seen in the afternoon to windward as also two other ships, presumed to be the *Assistance* and *Intrepid*.

On Sunday the 25th, the wind was still the same with occasional showers of sleet and snow, but otherwise very fine. The ice was now observed to extend quite across Barrow Straits, and in Wellington Channel, so as to render it unadvisable for the *Prince Albert*, unless intending to winter there, to enter within it. Accordingly it was determined at noon to bear up. At this hour she was at the extreme edge of the ice between Cape Spencer and Point Innes, consequently well in the channel. Mr. Snow now went to the mast-head to get an accurate view of the state of the ice, and position of the various ships, at this the last moment they would be seen by the *Prince Albert*. The following is in his own words "*Our true position, at that hour, was about midway between Cape Spencer and Point Innes*, having the ice within a mile of us, and ourselves about a mile from the shore. Looking to the westward I could faintly perceive Cape Hotham enveloped in a thick haze; and the *Assistance*, apparently, in a small hole of water, or

else a lead, some distance to the north-eastward of it, endeavouring to get there. Not far from the *Assistance*, and, either standing in the same direction, or trying to make way through the channel, was Penny himself, in the *Lady Franklin*; his position was probably, mid-channel. Astern of him, at some distance in an easterly direction, was the *Sophia*, also under all *plying* sail. Nearer in to the eastern shore was the *Rescue*, apparently beset. All the vessels were among heavy ice, and the whole of Wellington Channel as far as the eye could reach, appeared to be filled with one solid *pack*, excepting here and there a small *lane* of water. Turning towards Cape Bowden I could perceive *beyond it, and apparently trending to the north-westward, some high land,* but the haze and distance was too great to enable me to determine with accuracy. Land however was there, but its continuance I could not make out, nor yet the entire connection of the coast between Point Innes and Cape Bowden. I now moved myself round, and looked towards the south-west. It presented the same appearance as I have already mentioned. The ice in one heavy pack presented an apparently, impenetrable barrier in that direction. The only clear water visible, was that in our immediate vicinity, and in the direction we had come. I could not see the *Intrepid;* but as she had been seen the evening before, she was probably near the *Assistance.*"

Shorty after noon the *Prince Albert* bore up and at 2h. P.M. passed Beechey Island and opened out Cape Riley. The *Advance* was seen close in with the point, and a signal staff being discovered on shore, the ship rounded to, and Mr. Snow was sent to inspect the place. On passing close to the stern of the *Advance* he found she was aground without injury, and hauling of and offered her any aid, which was thankfully declined, and information imparted in return, that some traces had been found on the point. At this news Mr. Snow deemed it necessary to go on board for an instant to get more of the truth, upon receiving which he started off again and was speedily ashore. He at once ordered a minute search to be made around, among the rocks, and adjacent places, while he himself, with an anxiety and eagerness that may be well imagined proceeded to the flag staff and opened the cylinder fastened there. Inside of it he found a communication from Capt. Ommaney of the *Assistance* to the following effect:—

HER MAJESTY'S ARCTIC SEARCHING EXPEDITION.

"This is to Certify that Capt. Ommaney with the Officers of H.M. Ships *Assistance* and *Intrepid* landed at Cape Riley on the 23rd August, 1850. where he found traces of an encampment and collected the remains of materials, which evidently prove that some party belonging to H.M. Ships have been detained on this spot. Beechey Island was also examined where traces were found of the same party.

"This is also to give notice that a supply of provisions and fuel is at Port Leopold.

"H.M. Ships *Assistance* and *Intrepid* were detached from the squadron under Capt. Austin's command off Wolstenholme on the 15th inst., since when they have examined the North shores of Lancaster Sound and Barrow Straits without meeting with any other traces.

"Capt. Ommaney proceeds to Cape Hotham and Cape Walker in search for further traces of Sir John Franklin's Expedition."

"Dated on board H.M.S. *Assistance* off Cape Riley, 23rd August, 1850.

(Signed) "ERASMUS OMMANEY."

The following is the copy of another found at Cape Riley:—

"United States Expedition in Search of Sir John Franklin: E. J. De Haven, Esq., commanding the brig *Advance*, touched on the morning of the 25th to examine Cairn. She proceeded to Cape Hotham where she hopes to meet her consort the *Rescue*. "All's Well."

After reading this and depositing a notice of the *Prince Albert's* visit Mr. Snow then took a survey of the ground and locality, hunting about at the same time for any animate remnants of things which might denote that civilized beings had once been there. He observed some circular mounds of stones arranged much in the form that round tents if erected would have caused them to present, and a part which might well have been used, at one time as a fire-place for cooking. Bones and fragments apparently once belonging to oxen were also observed, but, independent of minor things, such as a bit of "parcelling," a small piece of canvass, a fragment of paper long ago thrown to the winds, a bone with two gimlet holes bored in it, a piece of navy rope well bleached with the Woolwich mark in it, was found by Mr. Wilson, the second mate, who had accompanied Mr. Snow. These were sufficient to show that some one had been there other than Esquimaux, or those now engaged on the discovery, even had not Capt. Ommaney's information been conclusive. Having no more time to spare, Mr. Snow, returned on board of the *Prince Albert* and reported to Capt. Forsyth what he had seen and found. The ship then stood away for Cape York, under all sail, with a fair wind.

Monday, the 26th was a thick foggy day. The land on the east side of Prince Regent Inlet was made, and when the fog lifted it was reported that the ice could be seen extending more out even than it had done before. With light airs and a most uncomfortable day the little ship slowly moved along the coast towards Cape York. At 6h. P.M. a cairn was discovered upon a hill on shore, and Mr. Snow, was sent to examine it, and also to leave some pemmican as a small depôt of Provisions. It was snowing very hard at the time, and the hill was at some short distance, higher than it first appeared, and fatiguing to mount. The duty, however, was accomplished though nothing was found. A spade and a crowbar, had purposely been carried up there by the men and about three feet below the surface of the ground under the cairn was cleared away, without success. A notice was left there, the cairn re-erected, and the pemmican left in a conspicuous place near the beach, and clear of the sea.

The party returned about 9h. P.M. and soon afterwards a very heavy gale, sprung up from the eastward, which continuing through the night and following day, prevented the land being seen. On the 28th the *Prince Albert* was off Admiralty Inlet, into which she ran and closely examined the Cape on both sides. It fell calm on the following after-

noon when off Cape Liverpool, but a light air afterwards helped the vessel into Possession Bay, where at 3h. A.M. on the 30th, Com. Forsyth landed. Nothing beyond a notice of the *Resolute* stating that she had called there on the 17th, and that Capt. Austin had gone in the *Pioneer* the preceding evening to Pond Bay was found.

The same day a vessel was seen in the north-east, which on the following morning was found to be the *North Star* homeward bound.

The succeeding two days were calm, light winds against them, and very thick foggy weather. For several days back a sensible darkness had been perceptible at night, and at this time it had extended to three or four hours. It was, therefore, difficult work to run the ship at night and required great care, though nothing like large bodies of ice had been seen. On Sunday evening, however, the fog cleared a little, and enabled the *Prince Albert* to run into Pond Bay, which was found to be one broad sheet of open water. At 10 P.M. she hove to off the inside of the north Cape of the Bay, and Mr. Snow was again despatched to make an examination of the place, and look for any notice that might have been left by either Captain Austin or any one else. It was quite dark, and lanterns, blue lights, long lights, &c., had, consequently, to be taken by him in the boat. At four different points was the search made ineffectually. On one, there had evidently been a very large encampment of the natives, at least, in number, it was calculated by the signs of their tents, &c., fifty or more. It was probable that Capt. Austin had seen these natives here, and had had communication with them, but deemed it prudent not to leave any notice or mark in their sight.

Finding no intelligence a cairn was erected upon one of the highest points, and a notice deposited previous to returning to the ship. As the boat had passed along the land from point to point, the appointed signals by burning blue lights, &c., were made, and these were answered from the vessel with other lights and skyrockets. By this means the position of both parties were known to each other, and upon the boat leaving the shore for the last time a long light was burned which kept on fire until reaching the ship. It was 1 A.M. when the party got on board. The vessel was kept hove to for the night, and next morning found herself drifted far up the Bay. It was very foggy again and a foul wind to get out. When it became clear, Mr. Snow from the mast-head examined well the western opening of the Bay. It appeared all free from ice, and no land was visible *unless it were a faint appearance of it in continuation of the north shore.*

For the next three days light winds and foul, obstructed the progress of the vessel to the southward, but on the 5th a breeze sprung up from the north and north-west which carried them on at a rapid rate, and free from any obstruction, to the neighbourhood of Cape Farewell. This was most extraordinary, and may be said, perhaps, to be hitherto unparallelled in the annals of Arctic Navigation; that a vessel should come the whole way from Wellington Channel through Baffin Bay and

Davis Strait to the Atlantic Ocean without meeting with or seeing any field ice, and even less than the usual number of bergs.

The usual gale of wind off Cape Farewell came this time from the eastward, and consequently with an after calm detained the *Prince Albert* in that quarter three days. A breeze came again from the north-west and continued for six days, alternately from north to west. A south-east wind then blew for six days, changing in a tremendous squall to W.N.W. on the morning of Saturday, the 28th September. At 2 P.M. of that day Barra and Rona Islands were sighted, and at 7 in the evening the light on Cape Wrath was observed, it blowing very heavy with remarkably high seas, lightning and showers of rain. The following morning they passed through the Pentland Frith by the Inner Passage and rounded Duncansby Head at 11h. A.M. Here foul winds, calms, and rains baffled them until the 30th, when being off the Moray Firth, a heavy gale came on from the north-east driving them towards a lee shore. A press of sail and the wind shifting a point or two in favour enabled them to round Kinnaird's Head and arrive at Aberdeen on the evening of October 1st.

During the voyage the crew have enjoyed most excellent health, and are now as well as any men could wish themselves to be. They have, we are informed, conducted themselves admirably and proved themselves as "fine a set of fellows as ever trod a ship's deck." Capt. Forsyth, and Mr. Snow, who was more particularly on the boat service, speak very highly of their conduct at all times, especially when he has had any of them with him exploring, or at work upon the ice, when in moments of danger, he has found them behave *as men*—fearless and undaunted. He gives them all his warmest commendation. The vessel too has proved herself eminently worthy of the noble service she was engaged upon. Her size, build, and sailing qualities could not be better; and she only wants a slight addition to her outside strengthening to render her equal to any ship employed in the Arctic Seas.

The Gutta Percha Boat has proved the best of any kind that has yet been tried in the ice, as every one of the men belonging to her, all old whalers, declared. They speak in terms of the greatest praise of her. The other boat is also a very fine and noble one in a seaway; and, along an open coast, any distance might be accomplished in her.

[The foregoing is the amount of the information which we at present possess on the fate of Sir John Franklin. Again we relapse into our former hopes and fears concerning him and his party, and again we are left to speculate opinions as to their position. The materials brought home by Com. Forsyth have been pronounced by Sir Edward Parry and Sir John Richardson to have undoubtedly been left at Cape Riley by Franklin, and most probably at the commencement of his voyage in the summer of 1845. Whether other accounts will be found at Cape Hotham to which Capt. Ommaney was making all haste, that will lead to tracing him up Wellington Channel or towards Melville Island, must remain in doubt until further accounts are received. One very important link in the chain of his track is thus secured. His ships we know were deep, and whether he was detained by ice at Cape Riley or stopped for observations (which we consider highly improbable), or took the opportunity while detained of getting things into their places on board, it matters little. Franklin was there, and possibly Capt. Ommaney can tell us more than we know yet of what he was doing there, and which route he adopted. Time will shew.—Ed.]

## Turkish for Tars, No. VIII.—*By Mahmouz Effendi.*

(Concluded from page 560.)

No officer in an English man-of-war stands higher in the estimation of the Turks than the *Djerrah* (*Surgeon*;) and indeed no individual can render them better service. A Moslem Medical School has, we are aware, been of late established at Constantinople, but it is not yet of sufficient growth to supply the Ottoman Navy with more than a few native *medicos*, and as to the Franks who have from time to time entered the Sultan's service in medical rank, the less said about the great majority of them the better. But the ever efficient surgeons of the British vessels of war stationed in the Levant, have for years past in the most disinterested manner conferred such benefits upon the Turks, both ashore and afloat that their skill and generosity are almost daily themes in every coffee-house and ship of the country. To our English Naval Surgeons therefore, a short vocabulary of maladies, etc., etc., may here be acceptable. Some forty terms have we observe been given in David's *Grammaire Turc*, (p. 131), to which easy reference may, on the home station be made while there fitting for the East, as that work is now to be had on every London book-stall for five shillings, although published at or about a guinea. We believe David's Grammar was originally published in English; but if so, we have ourselves never had the good fortune to fall in with it in that tongue. Our own copy is the French one, in quarto, A.D. 1836, to which we have just referred.

| *English* | *Turkish.* |
|---|---|
| Antidote | Pad-zehr |
| Antimony | Antimoun |
| Ache | Aghry |
| Ague or Shivers | Sitma titrèmesy |
| Amputation | Kesish |
| Apoplexy *see* Gout | Damla |
| „ | Sekteh |
| Apothecary | Ezadji |
| Arsenic | Zernikh |
| „ | Sitchan-oty |
| „ | Sulumen |
| Asthma | Nefes-darlighy |
| Bile | Safra |
| Bilious | Safrèvi |
| To bleed *see* Lancet | Kan almak |
| Blister | Pehluvan-yakisy |
| Blood | Kan |
| Bubo | Humret |
| „ | Kiarjik |
| „ | Yomrou |
| Cancer | Akileh |
| Cataplasm | Yaghlama |
| Cholera | Kolera illety |
| To Cauterize | Yaky yakmak |
| Cold | Zukiam |
| „ | Soghouk |
| Cold water | Soouk su |

| *English.* | *Turkish.* |
|---|---|
| Colic | Kouloundj |
| „ | Sandjou |
| „ | Karnaghrisy |
| Costiveness | Kabizlik |
| To cut | Kesmek |
| „ with a knife | Bitchak ilè kesmek |
| „ with scissors | Makas ilè kesmek |
| Contagious complaint | Salghoun Khastalighy |
| Consumption | Verem |
| Cough-plant | Euksuruk-oty |
| Cough | Euksuruk |
| To cup | Hadjamet itmek |
| To cough | Euksurmek |
| Dysury | Sidik toutoulmasy |
| Diarrhœa | Yurek Surmesy |
| Diabetes | Dolab illety |
| To Doctor | Iladj-virmek |
| Dysentery | Yurek burmelery |
| Dropsy | Istiska |
| Emetic | Tartarmaki |
| „ | Ematiko |
| Epilepsy | Sara khastalighy |
| „ | Toutariklik |
| Erysipelas | Bader |
| Febrifuge | Sitmai guideriji |
| Fever (Scarlet) | Hoummai-iskerlet |

| *English.* | *Turkish.* |
|---|---|
| Fever | Houmma |
| „ | Sitma |
| Fumigation | Toutsu |
| Fistula.. | Matieh |
| „ | Maddeh |
| Fracture | Kirish |
| Fractured bone | Kirik-guèmik |
| Gonorrhœa | Bel-souklighy |
| Gout | Derbendpaï |
| „ | Nikris |
| „ | Damla |
| Hot water | Sidjak su |
| Head-ache | Bash-aghrisy |
| Hemorrhoids | Maïèsil |
| „ | Bevasir |
| Hydrophobia | Souden-korkan |
| Hernia | Ghoudj |
| „ | Debeh |
| „ | Inmeh |
| Inflammation | Ishtial |
| Inflammatory complaint | Marazi-iltihabi |
| Inoculation | Ashlama |
| To Inoculate | Ashilamak |
| Issue (fonticule) | Yaky |
| Inoculated | Ashilanmish |
| Illness or complaint | Khastalik |
| Insanity | Beïhoshlik |
| „ | Delilik |
| Jaundice | Zerdy |
| „ | Saroulik |
| Kidney | Beubrek |
| Leprous | Djudamlu |
| Lint | Teftik |
| Leech | Soulouk |
| To make lint | Teftik yapmak |
| Liver complaint | Djiguer marazi |
| Lancet | Neshter |
| To Lance | Bir nishter ourmak |
| Mad | Tcheldurmish |
| Malady | Khastalik |
| „ | Illet |
| „ | Maraz |
| Measles | Kizamouk |
| Melancholy | Kaighou |
| „ (*see* bile) | Kara sevda |
| Mercurial Pill | Habb-ul-zibak |
| Nausea | Yurek boulanmasy |
| Narcotic | Takhtir-iden |
| Needle | Ibrè |
| „ | Ignè |
| Nerve | Sinir |

| *English.* | *Turkish.* |
|---|---|
| Nitre | Bora |
| No harm done | Zarar-yokh |
| Ophthalmia | Remed |
| Poison | Zehr |
| „ | Aghou |
| Pain in the eyes | Gueuz aghrisy |
| Pain | Aghry |
| Palpitation of the heart | Afkan |
| “ | Yurek titrèmèsy |
| Pestilential bubo | Baghlik |
| Pill | Habb |
| Pin | Toplu-ignè |
| Plague | Youmourjak |
| Purgative | Yurek-suren |
| „ Powder | Sufoufy munakky |
| „ Draught | Surmè sherbeti |
| „ „ | Boghaz Kisilmasy |
| Pulse | Nabz |
| Good Pulse | Nabzi mutesavi |
| To Poultice | Lapa ourmak |
| Poultice | Yaghlama |
| „ or Plaister | Melham |
| Rheumatism | Yel-marazi |
| Rectum | Sofra |
| Swelling | Shish |
| „ | Kabarak |
| Silk | Ipek |
| Scarification | Hadjamet |
| Small-pox | Tchitchek-illeti |
| Syphilis | Frenk-illeti |
| Spleen | Beukr |
| Splenetic | Dhalaklu |
| Swoon | Bailma |
| Surgeon | Djerrah |
| Tumour (fleshy) | Oughrè |
| Thread | Iplik |
| Thirst | Susouzlik |
| Tooth-ache | Dish-aghrisy |
| Tongue | Dil |
| Urine | Sidik |
| Ulcer | Tchiban |
| Vomit | Kousmah |
| To Vomit | Kousmak |
| Vaccination | Telkihy bakariï |
| Vein | Dhamar |
| Vinegar | Sirkeh |
| Wen | Our |
| „ | Siguil |
| „ | Taouk-gueuti |
| Yellow Fever | Sarou-sitma |

Dr William Wittman writing in 1799-1803, an account of the British Military Mission of seventy-six persons, sent to assist Sultan Selim in Syria and Egypt against the French, to which mission Wittman was himself attached as surgeon, says, that among the prevailing diseases in Turkey, the rickets are very common in children, and blindness (*Keurlik*)

in adults; that lame and deformed objects constantly appear; that pulmonary complaints are by no means prevalent; that catarrhal and asthmatic complaints are found most among elderly people, and that the Turks are certainly not subject to the multitude of diseases which infest some other nations. He adds that sores and wounds are managed and healed with much facility, owing to the temperance of the people; that fontanelles or issues are in common use; that cutaneous affections, herpetic and tettery eruptions are frequent, particularly upon the head; and that dyspepsia and other stomach complaints prevail very generally. Hernias are common; and besides plague Turks are occasionally subject to malignant and bilious remittent and intermittent fevers in Autumn; and Greeks and Armenians from living in Lent chiefly on oil and fish, suffer from herpetic complaints, scrophulous affections, ophthalmias, and several other diseases. Dr. Wittman's Medical Journal from 1800 to 1802, appears in the appendix of his quarto work, and may be consulted with much advantage; and the more recent observations of Dr. Madden [A.D. 1829,] who we believe practised medicine in Turkey, throw much light on the diseases of the East.

The above section of our vocabulary will we trust be found sufficient by our naval surgeons, as a *groundwork* upon which they themselves may easily construct a better, while visiting the ports of the Levant. We remember meeting some of the officers of H.M.S. *Tribune* at Smyrna, in 1837, who all carried note-books for pencilling down such Turkish words as they picked up ashore, a plan by which they ultimately acquired enough of the Osmanli tongue, to beat through the bazaars without an interpreter. One of their best linguists was Lieut. P——s, of the marines, also the most successful sportsman in the ship, and bearing him and his corps in mind, we shall now tender a few *military* words, having perhaps already given enough *naval* words at pp. 79-80.

Having just mentioned Smyrna we may state, that a "Vocabulary for the Smyrna Station," may be found in *Colburn's United Service Magazine* for April, 1850, and some preceding numbers; and some account of the City itself in the *New Monthly Magazine* for October, 1850; and that a few memoranda as to Pashas, Beys, Agas, Effendis, etc., were inserted in the *New Monthly Belle Assemblée* for September, 1849; and since our recommendation of White, Pardoe, and Slade, as the best authors on Stamboul, whose works ought to be provided for every man-of-war in the Levant, we see that the comic writer Albert Smith has published "A month at Constantinople," one of the most useful parts of which volume is said to be the table of the expenses of the trip.

But in this eventful year of 1850, it is not altogether necessary for our bold Britons to visit the distant Bosphorus so as to gaze upon real specimens of the genus Turk, since two Ottoman frigates, having twelve hundred men on board, are known to be even now making for Plymouth Sound. The Turks were last seen at Gibraltar.

We shall now subjoin a few words for our "jolly" friends the marines.

| *English.* | *Turkish.* |
|---|---|
| Arrow | Ok |
| Armistice | Mutarekè |
| Adjutant | Talimdji |
| Ambuscade | Kemindarlik |
| Arsenal | Top-hana |
| " | Djeb-hanè |
| Army | Asker |
| Artilleryman | Topdji |
| Bayonet | Sunu |
| Blacksmith | Demirdgi |
| Back of a Sword | Shish arkasi |
| Ball or Bullet | Guleh |
| Bulletin | Havadis-namè |
| Bivouac | Guidjè-bektchiligui |
| Camp (Moslem) | Ordou |
| „ (Christian) | Thabor |
| Cannon | Top |
| Camel-gun | Zemberouk |
| Carbine | At-tufengui |
| Captain | Yuz-bashi |
| Castle | Hissar |
| „ | Kerman |
| „ | Kaleh |
| Colonel | Mir-Alai |
| Corporal | On bashi |
| Commander-in-Chief | Ser-asker Pasha |
| Cheval-de-frise | Tcherki-felek |
| Commissary | Zakhyredji |
| Cartouche-box | Fisheklik |
| Courier | Tatar |
| Centre | Ortah |
| Cuirassier | Djebedji |
| Decoration | Nishan |
| Dirk | Handjar |
| Detachment | Beuluk |
| Draw-bridge | Asma-keupri |
| Drum | Nakara |
| „ | Davoul |
| Enemy | Dushmen |
| Ensign or Standard-Bearer | Bairactar / Sandjaktar |
| Flag | Bairak |
| " | Bandera |
| Farrier | Nalbend |
| Fowling-piece | Av-tufengui |
| Frontiers | Sinor |
| Forwards! | Haidè |
| Foot soldier | Piadè-askeri |
| To Fire | Tufenk atmak |
| Fireman | Touloumbadji |
| Fort | Burdj |
| General | Ser-Asker |
| Grain of a sword | Djevher |
| Gabion | Sharampoul |

| *English.* | *Turkish.* |
|---|---|
| General of Brigade | Miri-liva |
| „ Division | Ferik |
| Gunpowder | Barout |
| Girdle | Koushak |
| Guardhouse | Karavoul-hanè |
| Halt! | Dour |
| Head-piece | Bashlik |
| Helmet | Demir-takiasi |
| „ | Ashik |
| Horse-soldier | Suvar Askeri |
| Infantry | Iaia |
| „ | Piadè askeri |
| Intrenchment | Meteris |
| Javelin* | Djerid |
| Kettle drum | Dumbelek |
| „ | Nagara |
| To load | Tufengui doldourmak |
| Lantern | Fener |
| Lead | Kourshoun |
| Lancer | Mizraklu |
| Lieutenant, First | Mulazim-evvel |
| „ Second | Mulazim-sani |
| Lieutenant-Colonel | Bin-bashi |
| Militia | Rediff |
| Major | Kaimmakam |
| March | Yurish |
| Monture | Binek |
| Moustache | Biik |
| Matchlock | Mashelu tufenk |
| Musket | Tufenk |
| Miner, *see* Sapper | Laghoumdji |
| Musket-ball | Tufenk Kourshouni |
| „ „ | Tufenk foundoughi |
| Nosebag | Mikhlat |
| Officer | Asker-zabithy |
| Point of a Sword | Shish oudji |
| Pistol | Pishtov |
| „ | Thabandja |
| Quarter-master General | Konaktchi Bashi |
| Quarter-master | Konaktchi |
| Ramrod | Tufenk-tchiboughy |
| Regiment | Alai |
| „ | Redjmend |
| Rearguard | Leshker-ardy |
| Review | Yoklama |
| Rank | Bamberè |
| Shell or Bomb | Koumbara |
| Sabre | Kylidj |
| „ | Varsak |
| „ | Kazib |
| Scabbard | Kyn |
| Sapper, *see* Miner | Kazmadji |
| „ „ | Baltadji |
| Sergeant-major | Bash Tchaoush |

* The stick by which the *Djerid* when thrown is recovered, is called *Ok tchevkeni.*

| *English.* | *Turkish.* |
|---|---|
| Sergeant | Tchaoush |
| Soldier | Soldatt |
| Shot, small | Satchma |
| Stable | Akhor |
| Scimetar or Sabre | Kylidj |
| Shield | Kalkan |
| Sword | Shish |
| Summer-quarters | Yailak |
| Spyglass | Dourbin |
| To trot | Lenk tchalmak |
| Troops | Djind |
| The alarm | Potira |
| Trumpet | Borou |
| Target | Amadj |

| *English.* | *Turkish.* |
|---|---|
| Train | Sitchan yoly |
| Uniform | Askeri-kiafeti |
| Vanguard | Leskker cuny |
| Victory | Yenguinlik |
| „ | Nousret |
| „ | Zafer |
| Victorious | Ghalib |
| „ | Mouzaffer |
| Waggon | Araba |
| War | Djenk |
| Winter-quarters or Barracks | Kish-lik |
| Wing, right | Sagh-kol |
| Wing, left | Sol-kol |

We may observe in concluding this series, that Turkish military officers frequently take their titles or rank from the number of men they command; thus *Bin-bashi*, is a commander or "head" of 1000, or a lieut-colonel; *Yuz-bashi*, the commander of 100, or a captain; *On-bashi*, the commander of 10, or a corporal. The battalions in the Turkish army average from 750 men to 1000 each, and the greater portion of the whole army is now drilled *a la Franka*. When the blast of war next blows in their ears, may victory sit upon their helms! And in peace or strife may the shadow of the liberal *Sultan Abd-ul-Medjid*, never be less! *Tchok Yasha!* And so end we the eighth and last number of our TURKISH FOR TARS.

---

THE ANTILLES,—*Sombrero, Anguila, St. Martin, &c.—Described by Capt. E. Barnett, R.N., late of H.M.S. Thunder.*

*Medée Rock.*—The only danger to be avoided is the Medée Rock, recently discovered by that ship striking on it; the shoal is nearly circular and a cable's length in diameter, and on its north-east side has as little as fifteen feet, with from twenty to twenty-four feet to the south-west of it; it bears W.b.N. nearly four-tenths of a mile from Hancock Point, and between it and the shore there is 4 fathoms water. In entering the bay from the eastward the Saddle Hill near the north-west point of the island already noticed, should be kept open of the north side of Bluff Point, until Round Hill, a remarkable little woody isolated eminence on the bay shore is in one with Morne Fortune, when you may haul up and anchor on this line or a little to windward of it in 4 fathoms, with Crole Rock just open to the northward of the island. This bay is also exposed to the rollers which break in the south-west side of the bay half a mile from the shore, and send in a heavy surf on the beach. From Round Hill to the town the shore is skirted by a coral ledge, which makes landing extremely difficult except at a spot at the east end of the town under the west side of the Fort Hill, and here even you must be careful of sunken rocks which lie off a short distance.

From Hancock Point to the north-east end of the island the shore is clear, and may be approached by the lead to within half a mile. The most remarkable object on this part of the coast is the Crole Rock a small, barren, black, rocky islet, with a rounded top rising on its north side perpendicularly from the sea to the height of 120 feet, and separated from an adjacent point of the island, equally remarkable from its terminating in a detached conical peak of somewhat greater elevation: not quite two-tenths of a mile, to the southward of it there is a deep sandy bay, forming the base of the western side of the valley we have noticed, in which there are two cultivated salt ponds; but it offers no secure anchorage except for small droghers. The north-east point of the island is skirted by a reef which always shews itself to the distance of two cables' length, and which is bold to.

*Orient Bay.*—From hence the coast line turns abruptly to the south; two miles from the north-east point is Orient Bay half a mile wide at its entrance and a mile deep; its entrance is between two small islands of moderate elevation, skirted by dry reefs: from Penels the northernmost one, it extends off nearly half a mile, being, however, exposed to the full force of the trade-wind and sea, it is only safe for droghers or small vessels, which find shelter at both ends of it. From the southern island the shore is foul and dangerous as far as abreast Guano Cay, three and a half miles to the northward of Point Blanche. There is however, a small opening in the reef leading into the Oyster Pond, a small cove in which there is ten feet water; and where small vessels find security during the hurricane months, but its channel is so tortuous and intricate that no directions could be of any use. This side of the island should not be approached within the line of the adjacent islands—Mollybeday and Tintaman, except in cases of necessity.

*Guano Cay.*—Guano Cay lies one and a half mile N.E.b.E.$\frac{1}{2}$E. from Point Blanche, and four-tenths of a mile from the nearest point of the island. It is a small rocky islet rising almost abruptly from the sea to a height of 100 feet, and is slightly wooded, it is bold to on its south-east and south-west sides; but nearly half a mile to the north-east of it there are two small rocks, a little above the surface over which the sea breaks continually.

*Hen and Chickens.*—The Hen and Chickens are a cluster of small barren rocks extending in a north-east and south-west direction nearly two-tenths of a mile; the south-westernmost is fifteen feet above the level of the sea, the others not more than four or five, they are steep to on all sides; they bear E.$\frac{3}{4}$N. nearly two miles from Point Blanche.

*Mollybeday.*—Mollybeday is similar in form and appearance to Guano Cay, its rocky sides slightly wooded, rising abruptly to a height of 145 feet; it is foul on its south-east side to the distance of half a mile, and a quarter of a mile E.S.E. from it there is a small ledge of rocks a little above the surface, which always show themselves. There is a clear channel inshore of the island, and also between it and the Hen and Chickens, but, as before observed, they should be pursued only in cases of necessity.

*Tintamarre.*—The island of Tintamarre, called in the present directories Hat and Flat Island, from its appearance at a distance, is a mile and a half long N.E.b.E. and S.W.b.W. and half a mile broad. Its north shore is a bold rocky cliff which towards the east end of the island is almost perpendicular to a height of 157 feet topped with trees, and when seen from the eastward is very remarkable, the east end is also rocky but much lower; its south and west sides are low and sandy: the whole island is fringed by a coral reef except at the west end. On the north and east sides it does not extend to more than a quarter of a mile, but on its south side it reaches to half a mile from the beach, and terminates at the south-west point of the island. There is landing in the sandy bay at the west end, and where a small vessel may find insecure anchorage half a mile from the shore in 8 or 9 fathoms. The channel between the south-west end of the reef and the Pinal Island reef, is three-fourths of a mile wide but as we have before directed it should not be navigated unless absolutely necessary, more particularly from the danger of falling on the Spanish Rock. The island is out of cultivation and uninhabited, but is the property of a French resident at St. Martin.

*Spanish Rock.*—The Spanish Rock is a very small head of coral just beneath the surface, over which the sea breaks heavily in strong breezes, but in moderate weather it does not discover itself. It lies one mile and four-tenths north-west from the south-west end of Tintamarre, and one mile and a quarter E.b.N.$\frac{1}{2}$N. from the north-east point of St. Martin. Fort William (just seen over the eastern high land) in one with the highest part of Pinel Island, at its east end, leads clear to the south-east of it, the south-west point of Tintamarre on with the first hollow to the eastward in the high land at the west end of St. Barth (an indifferent mark) leads to the south-west of it, and the Crole Rock just open of the north-east point of St. Martin leads clear to the northward. Ships therefore running or beating through the Anguila Channel have only to be careful not to shut the Crole Rock in.

*Table Rock.*—The Table Rock is a small rocky islet nearly barren, and when seen from the northward or southward has somewhat the appearance of a shoe, with the heel to the westward, where it is about thirty feet above the level of the sea; it is clear all round, and may be approached on its west side to within a quarter of a mile.

*Grouper Rock.*—The Grouper is a rocky barren islet almost circular, and about two-tenths of a mile in diameter and very much resembles in appearance the Mollybeday, and Sugar Loaf Islands. It rises on all sides abruptly and terminates in a rounded summit 146 feet above the level of the sea. From its south side a coral ledge of dry and broken rocks extends off to the distance of a cable's length, leaving a small vein of deep water between it and the little Groupers; from all other quarters it may be approached within half a mile. The channel between it and the Table Rock may be navigated freely.

*Little Groupers.*—The Little Groupers are a small group of detached black barren rocks, the southernmost lying half a mile S.S.W.

from the Grouper Island, and the northernmost are fifteen feet in height; the intermediate ones being much lower; they are bold to on all sides except towards the Grouper, to which as before stated, they are nearly connected. The Five Islands are really but one island, with five remarkable barren rocky, peaked, elevations, which seen at a certain distance from the north-east or south-west have somewhat the appearance of being small separate islands. The two western hills are nearly of the same elevation being about 350 feet above the level of the sea: the others are a little lower, at a certain distance therefore it has the appearance of being only two islands. It is elbow shaped, its northern arm being three-quarters of a mile, and its eastern half a mile in length, and a quarter of a mile broad. At the east, and also at the west end there is a small low detached islet, lying a very short distance only from the shore, with dry sunken rocks between. A cable's length to the westward of the south end of the island there is a very small detached rock just shewing itself above the level of the sea.

There is anchorage on the south-west side with the prevailing winds, but it is advisable not to go farther into the bight than midway between the ends of the island, with the south-east point bearing about E.b.S., where you may ride with ease; closer in under the high land the wind is so baffling and unsteady, that in weighing you can hardly depend upon casting the right way, and there is not room to manœuvre. Ships however, in case of necessity may haul in close under the eastern arm, passing to the westward of the little rock we have noticed. There is good landing on the sandy bay at the north-east corner: the island is clear and steep to on all sides.

*Ship Island.*—Ship Island, or *la Boulanger*, is a small barren, rugged, black, rocky islet, rising abruptly from the sea, to the height of about 120 feet, separated two cables' length from a remarkable pillared shape rock, half a mile to the eastward of it, which from its resemblance to a vessel under sail, end on, has been called the Sail Rock, and which is nearly of the same height: these islands are very remarkable and cannot be mistaken.

*Barrel of Beef.*—The Barrel of Beef, is a small square black rock, only ten feet above the level of the sea, and steep to on all sides but the north-west, which is foul for a cable's length off.

*St. Bartholomew.*—The island of St. Bartholomew contains 2000 inhabitants, 600 of whom are negroes; it is of irregular shape, and deeply indented by numerous small sandy bays, separated by bold and steep rocky acclivities of moderate height. With reference to many of the Antilles, it may be said to be formed of irregular hills, the loftiest summit reaching only to the height of 992 feet, it is therefore lower than St. Martin. Its length between the extreme east and west points is five miles, and it varies in breadth from one to two miles. The island is distinguished from a distance by three remarkable hills near its east end, of nearly the same elevation forming a triangle, therefore when seen at a distance on the bearings of S.S.W., W.b.S. and N.W.b.W., and of course from the opposite points they appear as if only two hills; the

easternmost is 992 feet high, and more peaked than the others, the southern one 861, and the northern one 821, and is distinguished by its rounded summit. The island is in most parts barren and sterile, the numerous little valleys however are well cultivated, and vegetables are at all times to be obtained: its only exports are cattle and a little salt. The harbour of Gustavia being a free port it is supported by its commerce with the neighbouring islands; general supplies may be obtained at almost all periods, but firewood is scarce and water has to be purchased.

The north and east sides of the island, are fringed by a coral reef to a short distance from the shore, which always shews itself, and off them there are several islands and islets, which it will be necessary to describe.

---

### Voyage of the Rattlesnake.

The departure of H.M.S. *Rattlesnake* reminds us of our usual practice of offering to our readers a digest of the results of the voyages of discovery and survey that have been carried on upon the coast of this Continent. We have already, in a former number of our journal, communicated the particulars of the *Rattlesnake's* (and her tender, the *Bramble's*) last voyage, and have therefore but little left to state, and nothing of novelty to describe. The service, however, that has been rendered to the commercial interests of the colony, in perfecting the charts of the Inner Route through Torres Straits, which there seems now to be some grounds to hope will be brought into use by the steamers between Singapore and Sydney, calls at least for some notice from us; and whilst doing so, it may not be irrelevant to recapitulate the various results of her voyage, which may be comprised under the following heads, viz. :—

A Report of the sites selected for the Lighthouses erecting at Cape Howe and Bass Straits. The places were visited, and plans made of their localities; and the anchorages in Twofold Bay, off Eden, and Boyd, were examined and reported upon.

The survey of Botany Bay, and entrance of George and Cook Rivers.

The harbour and entrance of, and approach to Port Curtis surveyed and carefully sounded.

The completion of Captain Wickham's survey of Moreton Bay, and placing the buoys in the channels leading from Cape Moreton to the entrance of the Brisbane River.

The Inner Route, from Break Sea Spit to Booby Island, at the western entrance of Torres Strait, re-surveyed and minutely sounded, comprising plans of various anchorages and harbours, particularly that of Port Albany, near Cape York, and the complete survey of Torres Strait and the extensive coral reefs spreading their ramifications between the coast of New Guinea and the northern extreme of New South Wales, the greater part of which space had not previously been properly surveyed. By this survey five distinct new channels were discovered, and sounded with extreme care, but all proved to be inferior to the one to the north of Wednesday and Good Islands, which have hitherto been generally used by ships passing through the straits. Endeavour Strait was also very carefully examined, and, as several rocks had been seen, not previously known, and the probability of

more existing, the passage through it after rounding Cape York is of doubtful security.

The voyage was concluded by the survey of the southside of the eastern part of New Guinea, which had been commenced by Lieut. Yule in the *Bramble*, during the voyage of H.M.S. *Fly*; and by the arduous and dangerous exploration of the Archipelago of the Louisiade, then found to be surrounded by a coral reef, through which the ship was only enabled to find a passage by one narrow opening in the reef on the northern side of little more than 100 yards wide. The warlike and mischievous character of the natives* prevented much communication, and materially retarded the survey. Some communication was however procured, which afforded much of interest and novelty, and broke the otherwise monotonous character of the voyage. The position of the south-east extremity of the Louisiade was very satisfactorily determined.

The expedition then returned to Sydney to make preparation for its return to England, when the sudden decease of the commander took place, the recent occurrence of which renders it unnecessary to revert at any length to the melancholy event. Capt. Stanley was no common person. Active and indefatigable in all his pursuits, which were entirely of a scientific character—zealous and persevering through the arduous services he had undertaken, and so effectually completed, his premature death, in the midst of his usefulness, entirely caused by the anxieties and harrassing nature of the service he had been engaged in, is a public loss of no ordinary character. By his friends his memory will long be cherished, and to his family his loss will be irreparable.

It is well known that Capt. Stanley had possessed himself of much interesting information relative to the manners and customs of the inhabitants of New Guinea, of Louisiade, and of Torres Strait, beside many important observations and notices of a scientific character, which from the constant occupation of his time in the laborious details of the survey and calculations connected therewith, can scarcely be expected to be left in a state fitted for publication. It is, however, to be hoped that sufficient documents may be found that will enable some friend to give them to the world, and who more fit and capable of doing justice to his memory than his brother the Rev. Arthur P. Stanley, whose literary character is already so well established and widely known?

In Natural History, the collection has been large, and contains much of interest, and we have only to hope that the government, with its accustomed liberality in similar cases, will give all needful facility for their being published.

The *Rattlesnake*, it is understood, will call at the Falkland Islands to complete the series of magnetical observations that have been carried on throughout the voyage by Lieut. Dayman, and then proceed direct to England.

———

On her voyage the *Rattlesnake* was obliged to put into Auckland, New Zealand to refit. She had very bad weather to the Falkland Islands and during the time she remained there. After touching at the Azores she arrived at Plymouth on the 23rd of October and proceeded to Chatham to pay off.

* A report of an attack on the *Rattlesnake's* boats, appeared in our August number.

## Examination of Masters of Merchant Ships.

A List of the Masters in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 30th July.

Those marked thus *m* served last as mates.

| Names. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Jarvis, E.. .. .. | 2nd | 1828 | Conserative, 147 tons....*m* | 46189 | London | July 1st |
| Holdsworth, H.J | 2nd | 1825 | Ann, 800 tons .....*m* | 328855 | —— | — — |
| Bencraft, W.... | 2nd | 1824 | Indus, 1400 tons .....*m* | 265353 | —— | — — |
| Child, B. B .. .. | 3rd | 1811 | Durham, 421 tons ..... | 21036 | —— | — — |
| Gibson, J.. ..ex. | 1st | 1814 | Indus, 377 tons.. .. .. .. .. | ..... | Dundee | — 2nd |
| Harrison, R .... | 2nd | 1821 | Gem,..... .....*m* | 8954 | S. Shields | — 4th |
| Leonard, E.... .. | 2nd | 1822 | Milicete, 900 tons . .. ..*m* | 188043 | Liverpool | — 5th |
| Leisk, C.. ..... | 2nd | 1818 | Salacia, 844 tons ..... ..*m* | 345989 | —— | — — |
| Squiers, G..... | 3rd | 1813 | Ellen Gilman, 127 tons.... | ..... | London | — 8th |
| Dove, A. S..... | 3rd | 1811 | Maria Jane, 203 tons..... | ..... | —— | — — |
| Seaton, G..... | 2nd | 1818 | Toronto, 350 tons.. .. .... | 64851 | Hull | — — |
| Bell, J..... | 1st | 1810 | Eleanor Dixon, 453 tons .. | ..... | Liverpool | — 9th |
| Yule, G ..... | 2nd | 1824 | Vine, 161 tons .....*m* | 161485 | Dundee | — — |
| Shaw, J ..... | 1st | 1811 | Kilblain, 495 tons .... .... | ..... | Glasgow | — — |
| Patterson, J.... | 1st | 1806 | Diana, 237 tons .... ..... | ..... | —— | — — |
| Rodger, A..... | 1st | 1801 | Isabella Matson, 514 tons.. | ..... | —— | — — |
| Watt, A..... | 1st | 1814 | Panama, 522 tons .... .... | ..... | —— | — 10th |
| Darling, G. C.. | 2nd | 1826 | Azoff, 250 tons.....*m* | ..... | —— | — 11th |
| Borwick, R. .... | 3rd | 1804 | Robert and Ann, 229 ts..*m* | 92865 | S. Shields | — — |
| Hutchison, J. .. | 2nd | 1824 | Sacramento, 446 tons....*m* | 29546 | Leith | — 12th |
| Clark, G. A.... | 2nd | 1818 | Fairy Queen, 102 tons .... | ..... | Yarmouth | — 13th |
| Black, G. W.... | 2nd | 1818 | Favourite, 182 tons.....*m* | 74219 | London | — 15th |
| Slader, G..... | 3rd | 1820 | Tropic, 380 tons .....*m* | 22744 | —— | — — |
| Carphin, G. M.A | 3rd | 1825 | Sir Thos. Gresham,593ts*m* | 344798 | —— | — — |
| Morison, A..... | 2nd | 1827 | Matilda, 206 tons..... | ..... | Liverpool | — 16th |
| Davidson, J..... | 2nd | 1825 | Ellerslie, 230 tons .... .... | 260875 | —— | — — |
| PeppercorneWF | 2nd | 1814 | Trafalgar, 1250 tons .. ..*m* | 27892 | London | — 18th |
| Martin, B..... | 3rd | 1819 | Montrose, 739 tons .....*m* | 351433 | —— | — — |
| * Boyce, T..... | 3rd | 1823 | Iberia, 600 tons.. .....*m* | 418832 | —— | — — |
| Lowen, P..... | 2nd | 1817 | Bengal, 503 tons ..... | 32022 | —— | — 22nd |
| Porrett, W..... | 2nd | 1825 | Colonist, 390 tons .... .... | 5451 | —— | — — |
| Noel, T. J ..... | 2nd | 1812 | Renard, 142 tons..... | 31636 | —— | — — |
| Pashley, E. J. .. | 2nd | 1829 | Aboukir, 816 tons .. .. ..*m* | 328385 | —— | — — |
| Maguire, J. .... | 1st | 1818 | Consbrook, 423 tons ..... | 86280 | Liverpool | — 23rd |
| Anderson, H.... | 2nd | 1823 | Rose, 222 tons ..... | 147400 | S. Shields | — — |
| Colville. W. .... | 1st | 1811 | Mary and Ann, 262 tons .. | ..... | Glasgow | — — |
| Paterson, S..... | 1st | 1825 | Rajasthan, 435 tons .. .. .. | 86677 | —— | — — |
| Robertson, C.. .. | 1st | 1801 | Tropic, 382 tons ..... | ..... | —— | — — |
| Brown, D ..... | 2nd | 1826 | Spy, 170 tons .... .... ..*m* | 478098 | Dundee | — — |
| Silver, W. A. . | 2nd | 1817 | Amy Robsart, 347 tons.. *m* | 12117 | London | — 25th |
| Thorn, J.... .... | 3rd | 1813 | Alice Brown, 172 tons .. . | 33635 | —— | — — |
| Bulkeley, H .... | 1st | 1815 | Victory, 385 tons..... | ..... | Liverpool | — 26th |
| Hewitt, J..... | 1st | 1815 | Eliza Bell, 210 tons..... | ..... | —— | — — |
| Robbs, J..... | 3rd | 1809 | Mysore, 300 tons..... | 79028 | London | — 29th |
| Woolver, R.T.W | 3rd | 1818 | Stratford, 392 tons .....*m* | 460072 | —— | — — |
| Glanfield, R.... | 3rd | 1815 | Mary, 543 tons .....*m* | 323602 | —— | — — |
| Perkins, S..... | 2nd | 1819 | Ocean, 267 tons ..... | ..... | —— | — — |

### MATES.

| | | | | | | |
|---|---|---|---|---|---|---|
| Coltman, G. R.. | 2nd | 1820 | Stratford, 395 tons ..... | 26180 | Milford | June 25th |
| Ritchie, J. P.... | 2nd | 1826 | Diana, 237 tons .. .. ..... | 207037 | Glasgow | July 2nd |
| Hawkins, J..... | 3rd | 1823 | Hector, 295 tons ..... | 32475 | London | — 8th |
| Simms, W..... | 2nd | 1825 | Jane, 296 tons [Master].... | 326181 | —— | — 11th |
| Atkinson, J..... | 2nd | 1827 | Henry Warburton, 125 tons | 386981 | —— | — — |
| Grey, L. M. .... | 2nd | 1828 | Northumberland, 811 tons. | 30904 | —— | — — |
| Mason, J. G..... | 2nd | 1828 | Royal Albert, 700 tons .... | 26307 | —— | — 15th |
| Cann, R. F..... | 2nd | 1828 | Caroline, 370 tons [Boats].. | 328186 | —— | — — |
| Mackay, H. N.. | 2nd | 1828 | Avon, 1015 tons [Apprntice] | 206911 | Liverpool | — 17th |
| George, D..... | 2nd | 1818 | Arrow, 90 tons ..... | 266589 | —— | — — |
| Stephens, J. M... | 2nd | 1816 | Pottinger, 1400 tons [Sean.] | 480457 | London | — 18th |

* Qualified for Steam Navigation only.

## Nautical Notices.

The Court of Directors of the East India Company have lately received from the Government of Madras the following notification, which is published for general information.

*Madras Marine Board Office, 22nd October*, 1849.

Notice is hereby given, that on the 15th of November next a fixed light will be exhibited from a sandy hill abreast of the Santapillay Rocks, about 150 feet above the level of the sea. In ordinary weather it will be visible from the deck of a ship about 12 or 13 miles.

*Bearings from the Rocks:* Santapillay lighthouse N. 60° W.
Santapillay village, with the highest distant peak a little open to the North . . . . N. 55° W.
Next Sandy Hill to North . . . N. 40° W.

The following information is furnished by Captain Biden, Master Attendant at Madras, who surveyed the Rocks in 1846.

" Sailing Instructions as a guide when ships or vessels are on the coast of Orixa, or off the Santapillay Rocks.

" 1. Whereas a recent survey of the Santapillay Rocks, under the direction of Lieutenant Fell, I.N., and a further inspection thereof by the Master Attendant on the 6th instant, clearly prove that those Rocks comprise one of the most dangerous shoals in the Indian seas, and as no well-defined land-mark has hitherto been notified for the purpose of indicating their locality, and warning Commanders of ships and vessels of their near approach to those Rocks, it is therefore expedient to publish the following remarks for the guidance of all Mariners who may navigate the coast of Orixa, and the Bay of Bengal.

" 2. The Santapillay Rocks are in
Latitude . . . 17° 59′ 25″ N.
Longitude . . . 83° 47′ 37″ E.
and are distant from the coast between 5 and 6 miles. They are above 10 feet under water, steep to on all sides, and their extent is not beyond 200 yards in length. When there is but little wind and a smooth sea, this shoal presents no indication by broken or discoloured water, as Lieutenant Fell, when in search of it during very fine weather, brought the surveying brig *Kristna*, to anchor within 100 yards of the rocks before he could observe the slightest appearance of a shoal. He then proceeded in one of that vessel's boats over the rocks, and found 10½ feet on the shoalest part, on the eastern side 7 and 10 fathoms, and on the western limit 10½ fathoms rocky bottom.

" 3. The Master Attendant surveyed the Santapillay Rocks in the Honourable Company's steam-vessel *Hugh Lindsay*, on the 6th instant, during fine weather; and with a moderate breeze from south-west and a ground swell, the breakers were clearly discerned from the mast-head at the distance of 6 or 7 miles bearing due south, and Santapillay Peak bearing W. b.N. in 7 fathoms, off shore about 2 miles. The breakers were soon after seen from the deck, and at 11h. 45m. A.M., when the reef, which broke with considerable force, bore from S. 56° E., to S. 57° E., (?) and Santapillay Peak was bearing N. 43° W., the *Hugh Lindsay* was anchored in 9½ fathoms, coarse sand and shells, distant from the reef 2 miles, and from the coast 3½ miles, latitude by an indifferent observation 18° 1′ N.

" 4. Two boats were sent, under Captain Crawford, to examine the reef, and they carried regular soundings from the steamer of 9 and 9½ fathoms,

until within a quarter of a mile, and in less than 100 yards of the breakers, where they found 10¼ and 10½ fathoms rocky bottom; the breakers were too high to admit of the boats crossing over the reef; but Captain Crawford pulled round it, and gave as his opinion that the shoal, which lies N.N.W. and S.S.E, is in circumference, about a quarter of a mile, with 10 fathoms all round very close to the rocks. From the *Hugh Lindsay* the breakers seemed to extend the length of 200 yards.

"5. The inner channel is safe for ships and vessels of every class, as soundings of 5 fathoms within a mile of the coast, and 9½ fathoms within a quarter of a mile of the rocks, afford a clear space of nearly four miles in breadth.

"6. In fair weather, and when the Peak of Santapillay is visible, that lofty and remarkable land-mark affords an infallible guide to the true position of the Santapillay Rocks. This peak is at least 2,000 feet above the level of the sea, and presents a striking contrast to all the hills in its vicinity; it bears N. 50° W. from the rocks, and the base of the mountain is not more than 7 or 8 miles from the coast.

"7. But in thick weather, when no well-defined land-mark is discernible, then it becomes absolutely necessary to approach the coast between Ganjam and Vizagapatam with great care and caution, change of current, and the absence of all means by night or day of obtaining a single observation, may, without strict and unremitting attention to soundings, place a ship or vessel in imminent peril close to, or upon the Santapillay Rocks, which should not be approached from the eastward by night or day under 17 fathoms.

"(Signed) Charles Biden, *Master Attendant.*"

"*Master Attendant's Office, Sept. 21st,* 1846."

By order of the Marine Board,

(Signed) John J. Franklin, *Secretary.*

Published by order of the Court of Directors of the East India Company.

J. D. Dickinson, *Deputy Secretary.*

*East India House, London, the 29th August,* 1850.

---

Stanley Falkland Isles.—May 29th 1850.—Sir, The Government has made an alteration in the beacon on Point Pembroke, by erecting a sort of wooden tower, at its base, the base of which is nine feet square, tapering to to five feet square, and thirty-six feet high, above which is a topmast thirty feet high. The beacon from base to top being from sixty-five to seventy feet, and can be seen from seaward a distance of ten miles. The governor wished me to state that he has erected a reservoir, by which vessels can be watered for *5s.* to the quantitity of twenty tons, and 1*s.* per ton for extra.

I am, &c.,

*To Capt. Halsted, R.N.* J. M. Dear, *Lloyd's Agent.*

---

The captain of the *Arabia*, at San Francisco, reports that on July 18th, lat. 29° 30′ N., long. 155° 55′ W., sailed over a shoal with a large quantity of kelp fast to the bottom. Sounded, and found 11 fathoms water in several places; the vessel heading N.N.E. After crossing the shoal, about two miles, tacked ship and stood S.S.W. The shoal lies N.N.E. and S.S.W. about one mile wide and two long. Guano Islands bearing W. ¼ N., distant fifty-six miles, from the main land, S. 45° W., distant twenty miles. Lieut. Knox, U.S. steam-propeller *Massachusetts*, in surveying the western

coast of California, discovered, about eight miles N.W.b.W., per compass, from the rock off Cape Mendocino, a sunken ledge, on which the water breaks occasionally. Vessels passing the Cape should give it a wide berth of about nine miles, although a vessel may pass inside of it, and near the Cape, but the ground is very broken. Hatteras Islet has been examined by the coast survey party under the command of Lieut. Com. Thornton A. Jenkins, since the gale of August 30th. Very little change has been produced on the bar.—A P. Bache, Superintendant Coast Survey.

Washington, Sep. 26, 1850.—*Shipping Gazette, 16th Oct.*

---

Ada's Bank, *Malabar Coast.*—It may not be unimportant to Commanders of Ships trading between the Persian Gulf, India, and Singapore, to know that an extensive bank of mud exists, extending from lat. 14° 10′ N. to lat. 15° N.; long. 72° 15′ E. to long. 72° 38′ E. from 52 to 38 fathoms mud. In the south-west monsoon I have been a week without getting sight of the sun; the currents are very irregular; ships might sound on this bank, and fancying themselves on the shore bank, would of course haul to the southward again to get off soundings; if they did so, they would inevitably get entangled among the Laccadives; and in the south-west monsoon, I need hardly say what would be the consequence. As the above may be useful to mariners, I trust you will give it insertion in your columns. I have called it Ada's Bank, but those who go to examine it may call it, what they please.

*Journal of Commerce, 12th July.* I am, &c., N. H.

---

Galveston Light.—The light vessel at Galveston has been moored inside the bar in 3½ fathoms with the Cuba's Wreck bearing E.½N. and the Cathedral, S.W.½S. Vessels desiring to enter the harbour without a pilot should keep in 6½ fathoms till the light vessel bears N.W., then steer for her, passing close to the buoys on either hand. When up with the light haul up west, until about midway between two buoys (the one on the starboard hand marks the end of the Pelican Spit, the other "the Knoll"), then steer S.S.W. for the wharves. Masters of vessels unacquainted with the channel, should anchor near the light vessel, and not attempt to come up to the town without a pilot.

Vessels desiring a pilot, should come to in 6½ fathoms, with the light bearing W.N.W.

---

The Fastnett Rock Lighthouse.—The Fastnett is a solitary rock, several miles out in the great Atlantic, off the coasts of Cork and Kerry, and is about the first high land met with by the homeward bound ships from the western world. Such is its exposed position, the depth of water, and the sheer descent of the precipitous sides of the rock, that is is difficult to land on it even in the best weather. The construction of a first class lighthouse upon it has, therefore, been a matter of great difficulty, and its progress, now almost to completion, evidences the skill and resources of its engineer and designer, George Halpin, Esq., C.E., of the Ballast Corporation, under which body it was contracted for.

The whole shell of the structure is of iron. The tower, which is above 25 feet diameter at the base, and above 80 feet in height to the gallery floor, is composed of plates of cast iron of nearly 1½ inches in thickness,

flanged jointed; all exactly jointed by the planing machine, and bolted together. This great conical tower is surmounted by a bold projecting cornice and gallery, above which the tower again rises some feet, and terminates in the light room or lanthorn, capped by the dome, which is composed of compound ribs, covered with galvanised iron plates, uniting in a central bronze ring and terminal ball, with lightning conductor point. The whole structure internally is lined with brick-work and masonery, the floors of stone, and the staircases, from loft to loft, of cast iron. Through the centre descends a hollow column of cast iron, to allow the movement of the great weight which is to keep the revolving light in motion; and in the arrangement of the illuminating apparatus (not yet complete) the engineer has adopted all the most recent improvements in this beautiful and delicate branch of engineering.

The whole structure is bolted down at its base to the solid rock, and further steadied by being filled up solid to some height with masonery; for although its base is an immense height over the sea level when at rest, it is expected (indeed there is no doubt, from the experience had during its erection) that in violent storms the Atlantic waves will make a clean breach over it, or at least reach its summit.

As absolutely an Irish work—designed by an Irish engineer, and executed (without the alteration of a line from the original contract designs) by an Irish firm, and by native workmen erected, on the most southerly spot of Irish land—it is likely to stand for ages an object justly of some national pride, and, like its great compeers, the Eddystone, the Bell Rock, and the Skerryvore, to be hailed by the mariner, through the thickest midnight of the wintry storm, as the emblem of home, and the guide to safety.

[A modest comparison this truly!—Ed.]

---

The Polar Sea.—The process of reasoning by which I have arrived at the conclusion, that there is probably an open sea near the region of Parry Islands, has not been published. It is partly on well known facts, and partly derived from the investigation carried on here with regard to the currents of the ocean.

These are the facts and observations stated briefly, upon which the conclusion is based. We have traced the Gulf Stream to the north of the British Isles, and thence around North Cape into the Arctic Ocean. We have traced a current from the Pacific at certain seasons of the year also into the Arctic Ocean.

Geographers have traced also into the same ocean immense bodies of fresh water that is carried to the Polar regions by the rivers of Northern Europe, Asia, and America.

We have also made the existence of the fact to appear probable, that the amount of precipitation over the Arctic Ocean is greater than the evaporation, and that all of these facts go to shew, that there is a large balance of water in that sea always in motion, and which finds its escape through Davis Straits and Baffin Bay into the Atlantic Ocean.

The ice has been observed generally when it breaks up to press against the north part of this continent it therefore commences to break up first from the north, since we infer that it has been warmer at the north.

The birds and beasts are also found to migrate to the north. These are two facts which go to induce the belief that there is a climate milder than that about Mackenzie River, farther to the north, and the presence

there of large quantities of water in a fluid instead of a solid state, would tend to make such difference of climate.

That the water in motion must be for the most part in a fluid state is clear, and that along the northern shores of this continent it is not in a fluid state for much of the year is also clear; and as the Baffin Bay current is always in motion, the conclusion has been forced upon me that the water which comes from around the North Cape through Bhering Straits, and down the rivers of Europe and Asia into the Arctic basin probably passes along to the north of Parry Islands on its way out into Baffin Bay.

Such are some of the general facts and circumstances which induced me to make the remarks in the instructions to Lieut. De Haven to which Lady Franklin refers in her letter to Mr. Grinnell.

*Nautical Observatory, Washington,* (Signed) M. F. MAURY.
July 25th, 1850.

---

THE DEVIL ROCK.—A correspondent has enquired of us concerning the existence of this rock. We will tell him all we know of it in our next.

---

## NEW SCALE OF PAY AND PROVISIONS.

*By the Commissioners for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c.*

HER Majesty having been graciously pleased, with the view of improving the condition of the Petty Officers, Seamen, and Marines, of the Fleet, to direct that the following alterations should be made in the Scale of Victualling and Pay, of the Royal Navy, viz.—

1st. The allowance of Salt Meat to be increased from three-quarters of a pound, to a pound, per man, per day.

2nd. The allowance of Sugar to be likewise increased; and Mustard and Pepper to be substituted for a certain portion of Oatmeal and Vinegar.

3rd. The allowance of Spirits to be reduced; and a compensation in money to be granted for such reduction, as shewn in the annexed Scale.

4th. The Pay of the Navy to be re-cast at a daily Rate, and the compensation above mentioned to be blended with, and form part of the Pay.

5th. The Calendar to be substituted for the Lunar Month in the Payment of Wages.

You are hereby required and directed to cause the said new Scale of Victualling and Pay, together with the Regulations attached thereto, to be promulgated, and carried into effect, accordingly, on board Her Majesty's Ships under your command, on, and after the 1st of January next.

In the event of any Ships of your Squadron being on a distant part of the Station, and unable therefore to commence the new Scale of Pay and Provisions on the 1st of January next, the same to be postponed till the 1st of April following.

The necessary supply of the new Rate Books will be forwarded to you by the Storekeeper General.

Given under our hands, this 1st day of October 1850.

F. T. BARING. H. STEWART.
J. W. D. DUNDAS. A. MILNE.
M. F. F. BERKELEY. W. COWPER.

By Command of their Lordships,
J. PARKER.

*To all Commanders-in-Chief, Captains, Commanders, and Commanding Officers of Her Majesty's Ships, and Vessels.*

*Table shewing the allowance of Grog and Compensation Money.*

| Rank. | Allowance of Grog. | Compensation Allowance. |
|---|---|---|
| 1st. Admirals, Captains, Lieutenants and Wardroom Officers.... | Half present allowance. | Nil. |
| 2nd. Mates, Assistant Surgeons, Second Masters, and Clerks..... | Half present allowance. | Savings price, for half allowance. |
| 3rd. Midshipmen, Masters Assistant, Clerks Assistant, and Boys of 1st Class ..... | Do. at the discretion of the Capt. | Do. |
| 4th. Cadets, & Boys of 2nd Class.... | Nil. | Savings price, for whole. |
| 5th. Assis. Engineers, Warrant Officers, Petty Officers, Able Seamen, & others of that class, Ordinary Seamen, Non-Com. Officers and Privates of Royal Marines... | Half present allowance. | 3s. 6d. per man per calendar month. |
| 6th. Second Class Ord. Seamen, Landsmen, and other of that Cl. | Half present allowance. | 2s. 6d. per man per calendar month. |

Blended with pay.

*A Scheme of Victualling for the Navy.*

(Sanctioned by Her Majesty's Order in Council of the 24th September, 1850.)

There shall be allowed to every person serving in Her Majesty's Navy, the following daily quantities of Provisions, viz :—Biscuit 1lb., Spirits ½gill., Fresh Meat 1lb., Vegetables ½lb , Sugar 1¾oz. Chocolate 1oz., Tea ¼oz.

When Fresh Meat and Vegetables cannot be issued, there shall be allowed In lieu thereof:—Salt Pork 1lb. Peas ½pint every alternate day; or, Salt Beef 1lb., Flour ¾lb., or, Preserved Meat ¾lb., Preserved Potato or Rice, (or ½ of each,) ¼lb., alternately on the days when Salt Pork and Peas are not issued.

And weekly, whether Fresh, or Salt, or Preserved Meat be issued:—Oatmeal ½pint, Mustard ½oz., Pepper ¼oz. per man.

There shall also be allowed weekly, Vinegar not exceeding ¼pint per man, for occasional use only when actually required, but not to be expended unecessarily, nor considered as subject to be paid for when not used.

Suet and Raisins, or Suet and Currants, shall be substituted for ¼ part of the before-mentioned proportion of Flour, half of the said fourth part in Suet, and the other half in Raisins or Currants, at the following rates, viz:—½lb. of Suet, or 1lb. of Raisins, or ½lb. of Currants, is to be considered equal to 1lb. of Flour.

In case it should be found necessary to issue substitutes for any of the foregoing species of Provisions:—1¼lb. of Soft Bread, or 1lb. of Rice, or, lb Sago, or 1. of Flour, is to be considered equal to 1lb. of Biscuit.

½ pint of Wine, or 1 quart of Strong Beer, or ½ gallon of Small Beer, is to be considered equal to ½ gill of Spirits.

1oz. of Coffee, 1oz. of Cocoa, 1oz. of Chocolate, ¼oz. of Tea, are to be considered equal to each other.

1lb. of Sago,, 1lb. of Scotch Barley, 1lb. of Pearl Barley, 1lb. of Rice, are to be considered equal to each other.

1lb. of Rice, or 1 pint of Calavances, or 1 pint of Dholl, or ½ pint of Split Peas is to be considered equal to 1 pint of Peas.

1lb. of Rice. is to be considered equal to 1 quart of Oatmeal.

¼lb. of Onions, or ¼lb. of Leeks, is to be considered equal to 1lb. of other Vegetables.

The following Scheme shows the proportion of Provisions for each man for 28 days, when not on Fresh Meat Victualling.

| Days of Week. | Biscuits. | Spirits. | Salt Beef. | Salt Pork. | Preserved Meat. | Pre. Potato or Rice. | Flour, &c. | Peas. | Sugar. | Chocolate. | Tea. | Oatmeal. | Mustard. | Pepper. | Vinegar. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | lbs. | gills | lbs. | lbs. | lbs. | lbs. | lbs. | pint | oz. | oz. | oz. | pint | oz. | oz. | |
| Sun. | 1 | ½ | 1 | ... | ... | ... | ¾ | ... | 1¾ | 1 | ¼ | | | | |
| Mon. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Tues. | 1 | ½ | ... | ... | ¾ | ¼ | ... | ... | 1¾ | 1 | ¼ | | | | |
| Wed. | 1 | ½ | ... | 1 | ... | ... | ... | ⅛ | 1¾ | 1 | ¼ | ¼ | ½ | ¼ | |
| Thurs. | 1 | ½ | 1 | ... | ... | ... | ⅝ | ... | 1¾ | 1 | ¼ | | | | |
| Friday | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Sat. | 1 | ½ | ... | ... | ¼ | ¼ | ... | ... | 1¾ | 1 | ¼ | | | | |
| Sun. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Mon. | 1 | ½ | 1 | ... | ... | ... | ¾ | ... | 1¾ | 1 | ¼ | | | | |
| Tues. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Wed. | 1 | ½ | ... | ... | ⅔ | ¼ | ... | ... | 1¾ | 1 | ¼ | ¼ | ½ | ¼ | |
| Thurs. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Friday | 1 | ½ | 1 | ... | ... | ... | ¾ | ... | 1¾ | 1 | ¼ | | | | |
| Sat. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Sun. | 1 | ½ | ... | ... | ¾ | ¼ | ... | ... | 1¾ | 1 | ¼ | | | | |
| Mon. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Tues. | 1 | ½ | 1 | ... | ... | ... | ¾ | ... | 1¾ | 1 | ¼ | | | | |
| Wed. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | 1 | ¼ | ½ | ¼ | |
| Thurs | 1 | ½ | ... | ... | ¾ | ¼ | ... | ... | 1¾ | 1 | ¼ | | | | |
| Friday | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Sat. | 1 | ½ | 1 | ... | ... | ... | ¾ | ... | 1¾ | 1 | ¼ | | | | |
| Sun. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Mon. | 1 | ½ | ... | ... | ¾ | ¼ | ... | ... | 1¾ | 1 | ¼ | | | | |
| Tues. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Wed. | 1 | ½ | 1 | ... | ... | ... | ¾ | ... | 1¾ | 1 | ¼ | ¼ | ½ | ¼ | |
| Thurs. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Friday | 1 | ½ | ... | ... | ⅝ | ¼ | ... | ... | 1¾ | 1 | ¼ | | | | |
| Sat. | 1 | ½ | ... | 1 | ... | ... | ... | ½ | 1¾ | 1 | ¼ | | | | |
| Propor for 28 days. | 28 | 14 | 7 | 14 | 5¼ | 1¾ | 5¼ | 7 | 49 | 28 | 7 | 1 | 2 | 1 | |

¼ pint weekly as explained before.

*Regulations relating to the issue of the allowance of Grog and Provisions.*

1. The allowance of Grog is to be served out at dinner-time only, the evening serving being discontinued; and all sale, loan, barter, or transfer, of Grog is strictly prohibited.

2. No Raw Spirits are to be issued to any one, unless by the special directions of the Captain.

3. In case of persisting Drunkenness, the Captains or Commanding Officers of Her Majesty's Ships, are authorized to charge against the Pay of the person so offending, a sum not exceeding the amount of compensation money shewn in the preceding Table; such mulct, or abatement, to be charged against the party on the Ship's Books, and to be reported in the Quarterly Returns, of Punishments.

4. No Grog is to be allowed to Naval Cadets, or Boys of the 2nd Class.

5. The allowance of Grog to Midshipmen, Master's Assistants, Clerk's Assistants, and Boys of the 1st Class, is to be issued only by the special written directions of the Captain, and when not issued is to be paid for as Savings.

6. If any man should not wish to take up his allowance of Grog, he will be paid the Savings price for it; or he may, if he prefer it, be allowed to take up, in lieu, $\frac{1}{4}$ oz. of Tea, and 1oz. of Sugar, in addition to the established allowance of those articles.

7. The Savings price on Tea is to be in future 1s. a pound, and that on Sugar 3d. a pound.

8. In cases where salt meat shall have lost more than half its weight in boiling, the Captain or Commanding Officer, is, on satisfying himself of the correctness of the fact, to authorise the Paymaster and Purser to issue an additional portion of raw salt meat, equal to half the original allowance.

9. The Fat or Skimmings of the Coppers, which may not be required for the use of the Ship, is to be saved, and put into Casks, and to be delivered into the charge of the Paymaster and Purser of the Ship, who is to return it into Store at any of Her Majesty's Depots; but in the event of his not being able to comply with this regulation, he is to obtain a written order from his Captain to dispose of the same at the most favourable price for the Government, taking credit for the same in his account, and debiting himself with the proceeds of sale.

On the delivery of the above Fat or Skimmings into the charge of the Paymaster and Purser, he is to apply to the Captain for authority to pay to the Cook of the Ship, one half of the value of the Fat, (out of which sum one-fourth is to be divided among Cook's Mates, the remaining three-fourths to belong to the Cook); the other half is to be appropriated to the use, and for the benefit, of the Ship's Company, in the manner which may be deemed most advisable by the Captain.

The Savings Price of the Fat for carrying out the above arrangement is to be £1. per cwt.

---

*A Scheme of Victualling for Troops when embarked.*

(Sanctioned by Her Majesty's Order in Council of the 24th Sept., 1450.)

| *Species.* | *Crew.* | *Officers and Soldiers.* | *Women.* | *Children under 10 yrs. of age* |
|---|---|---|---|---|
| Bread.....lb. | 1 | 1 | $\frac{1}{2}$ | $\frac{1}{4}$ |
| Spirits.....gill. | $\frac{1}{2}$ | $\frac{1}{2}$ | — | — |
| Chocolate.....oz. | 1 | $\frac{2}{3}$ | 1 | $\frac{1}{2}$ |
| Sugar.....oz. | $1\frac{3}{4}$ | 1 | $1\frac{3}{4}$ | $\frac{7}{8}$ |
| Fresh Meat.....lb. | 1 | $\frac{2}{3}$ | $\frac{1}{2}$ | $\frac{1}{3}$ |
| Vegetables.....lb. | $\frac{1}{2}$ | $\frac{1}{3}$ | $\frac{1}{4}$ | $\frac{1}{6}$ |
| Tea.....oz. | $\frac{1}{4}$ | $\frac{1}{6}$ | $\frac{1}{4}$ | $\frac{1}{8}$ |
| But when Fresh Meat and Vegetables are not issued, there shall in lieu thereof be viz:— | | | | |
| Salt Pork every alternate day.....lb. | 1 | $\frac{3}{4}$ | $\frac{1}{2}$ | $\frac{1}{4}$ |
| Peas Ditto. ditto. .....pt. | $\frac{1}{2}$ | $\frac{1}{3}$ | $\frac{1}{4}$ | $\frac{1}{8}$ |
| or, alternately on the day when Salt Pork and Peas are not issued | | | | |
| Salt Beef.....lb. | 1 | $\frac{3}{4}$ | $\frac{1}{2}$ | $\frac{1}{4}$ |
| Flour.....lb. | $\frac{3}{4}$ | $\frac{1}{2}$ | $\frac{3}{8}$ | $\frac{3}{16}$ |
| Or, Preserved Meat.....lb. | $\frac{3}{4}$ | $\frac{1}{2}$ | $\frac{3}{8}$ | $\frac{3}{16}$ |
| Presd. Potato or Rice (or $\frac{1}{2}$ of each) oz. | 4 | $2\frac{2}{3}$ | 2 | 1 |
| And Weekly, whether Fresh, or Salt, or Preserved Meat be issued:— | | | | |
| Oatmeal, (not exceeding).....pint. | $\frac{1}{4}$ | $\frac{1}{6}$ | $\frac{1}{8}$ | $\frac{1}{16}$ |
| Vinegar " .....pint. | $\frac{1}{4}$ | $\frac{1}{6}$ | $\frac{1}{8}$ | $\frac{1}{16}$ |
| Mustard " .....oz. | $\frac{1}{6}$ | $\frac{1}{8}$ | $\frac{1}{4}$ | $\frac{1}{8}$ |
| Pepper " .....oz. | $\frac{1}{4}$ | $\frac{1}{6}$ | $\frac{1}{8}$ | $\frac{1}{16}$ |

N.B.—The Oatmeal and Vinegar are intended only for occasional use.

Suet and Raisins, or Suet and Currants, shall be substituted for $\frac{1}{4}$ part of the proportion of Flour; $\frac{1}{4}$ of the said fourth part in Suet, and the other half in Raisins, or Currants, at the following rates, viz:—$\frac{1}{2}$ lb. of Suet, or 1lb. of Raisins or $\frac{1}{4}$lb. of Currants, to be considered equal to 1lb. of Flour.

*Table of Pay for Petty Officers, Seamen, and Boys, including compensation for reduction in Spirits.*

| *Ratings.* | *Year.* | | | 31 *days.* | | |
|---|---|---|---|---|---|---|
| Admiral's Coxswain, Ship's Cook, Leading Stoker, (when within the Tropics, while the steam is up, half the Pay in addition) Chief Boatswain's mate, Carpenter's Mate*, (in vessels in which no Carpenter is borne), Seaman's Schoolmaster, Master-at-Arms, Sailmaker, Ropemaker, Caulker†, Blacksmith, in 1st. 2nd. and 3rd rates..... | 36 | 10 | 0 | 3 | 2 | 0 |
| Carpenter's Mate,* Seaman's Schoolmaster, Master at Arms, Sailmaker, Ropemaker, Caulker,† Blacksmith, in all other ships..... | 34 | 19 | 7 | 2 | 49 | 5 |
| Ship's Corporal, Captain's Coxswain, Quarter Master, Gunner's Mate, Boatswain's Mate, Coxswain of the Launch, Captains of the Forecastle, Hold, Main-top, Fore-top, Afterguard..... | 31 | 18 | 9 | 2 | 14 | 3 |
| Sailmaker's Mate, Caulker's Mate, Armourer, Cooper..... | 30 | 8 | 4 | 2 | 11 | 8 |
| Yeoman of the Signals, Second Captains of the Forecastle, Main-top, Fore-top, Afterguard, Coxswains of the Barge, Cutter, Pinnace, Captains of the Mizen-top, Mast, Paymaster and Purser's Steward, Musician, Head Krooman..... | 28 | 17 | 11 | 2 | 9 | 1 |

* Tool Money. † Tool Money if employed in the Carpenter's Crew, and in possession of Carpenter's Tools.. 4 11 3 0 7 9

| If a Ship has been in Commission. | 3 yrs & upward | | | 2 years. | | | 1 year. | | |
|---|---|---|---|---|---|---|---|---|---|
| | £ | s. | d. | £ | s. | d. | £ | s. | d. |
| Gratuities, for good and exemplary conduct on a ship being paid off, allowed to..... 1st Class Petty Officers / Serjeant of Marines..... | 7 | 0 | 0 | 4 | 13 | 1 | 2 | 6 | 8 |
| 2nd Class Petty Officers / Corporal of Marines..... | 5 | 0 | 0 | 3 | 6 | 8 | 1 | 13 | 4 |
| Stoker or Coal Trimmer,* (when within the tropics, while the steam is up, half the Pay in addition.)..... | 31 | 18 | 9 | | | | 2 | 14 | 3 |
| Painter,* Sailmaker's Crew,* Cooper's Crew,* Carpenter's Crew..... | 25 | 17 | 1 | | | | 2 | 3 | 11 |
| Tool Money to Carpenter's Crew..... | 4 | 11 | 3 | | | | 0 | 7 | 9 |
| Able Seamen,* Yeoman of the Store Room,* Sick Berth Attendant, Officer's Cook, Steward, Domestic, Tailor, Bandsman,* Second Head Krooman..... | 24 | 6 | 8 | | | | 2 | 1 | 4 |
| Ordinary Seaman, Cook's Mate, Barber..... | 19 | 15 | 5 | | | | 1 | 13 | 7 |
| Second Class Ordinary Seaman, Landmen, Paymaster and Purser's Steward's Mate, Krooman..... | 16 | 14 | 7 | | | | 1 | 8 | 5 |
| Good Conduct Pay in addition if not in the receipt of a pension..... 1 Badge | 1 | 10 | 6 | | | | | 2 | 7 |
| 2 Badges | 3 | 0 | 10 | | | | | 5 | 2 |
| 3 Badges | 4 | 11 | 3 | | | | 0 | 7 | 9 |
| Seaman Gunner.—An allowance in addition to the Pay of Rating he may hold. 1st period of Five years from the date of his passing Certificate in Gunnery. | 1 | 10 | 5 | | | | 0 | 2 | 7 |
| 2nd Ditto ditto. | 3 | 0 | 10 | | | | 0 | 5 | 2 |
| 3rd Ditto ditto. | 4 | 11 | 3 | | | | 0 | 7 | 9 |
| Diver..... | 1 | 10 | 5 | | | | 0 | 2 | 7 |

| Ratings. | Year. | 31 days. |
|---|---|---|
| Boy of the 1st. Class, Paymaster and Purser's Steward's Boy | 10 12 11 | 0 18 1 |
| Boy of the 2nd Class | 9 2 6 | 0 15 6 |

The Allotments in force under the existing Scale are not to be altered; but all fresh Allotments made after the 1st January next, are to be according to the New Scale.

Clerks, who have passed their examination for Paymasters and Pursers, may, from the 1st January, 1851, draw Bills for their Full Pay quarterly, instead of half yearly, as heretofore.

---

## Nautical "Sayings and Doings."

It is related that a little girl, whilst playing on the wooden bridge crossing the Mill Goit, at the bottom of Kirkgate at Wakefield, accidentally fell into the water. Several persons were passing at the time, but none interfered to save the child until Capt. C. H. Binstead, R.N., who happened to be coming by, saw the occurrence. He immediately threw off his hat and coat, dashed into the stream, and succeeded in bringing the girl safe to shore. A few moments later, and the efforts of her gallant preserver would have been in vain, as the current is very strong at that particular part of the river, and would probably have absorbed her in its vortex but for the timely rescue thus afforded.

A line of steamers between Trinidad and Maracaibo is about to be established.

Three vessels of 2,000 tons each are now getting ready for sea at New York. The owners of the *Pioneer*, have resolved on furnishing emigrants in their line with food of the best quality, and well cooked; first for the sake of getting a larger business; and next, for the purpose of bringing over emigrants in a more healthy condition, so that they shall not on their arrival become inmates of the hospitals, and a public burden.

Miss Howard, of York-place, has assigned over to trustees the sum of £45,000 for erecting twenty houses at Pinner, near Harrow, for the sole use of widows, preference being given to those of Naval men, then those of the Army, and the remainder to be clergymen's widows, to live rent and taxes free, with an allowance of £50 per annum.

The West India Steamers have ceased to call at Maderia.—There is consequently no packet communication with that island, with the exception of that effected by the Brazilian packets once a month from Falmouth. There will be no packet communication between Southampton and Madeira, until the West India Company's Brazilian contract commences next January. Advantage has been taken of this suspension of packet communication by the owners of the Southampton and Madeira liners, and they are reaping an abundant harvest. The *Eclipse* left this port for Madeira about a week since, the *Dart* left on Tuesday last, the *Brilliant* left yesterday, and the *Comet* is advertised to leave next Thursday. There will always be a considerable passenger trade by these liners to and from Southampton, as a great number of invalids are unable to bear the noise and bustle on board steamers where there is a large number of passengers going to different parts of the world.

The will of John Frodsham, Esq., late of Stoke Newington, and formerly of Change Alley, Chronometer-maker, who died last June, has just been sworn to, and his property proved to be £80,000. Amongst his legacies are the following charitable bequests: To the worshipful company of Clock-makers £1,000; to the Charity School of Langbourne Ward, London, £250; to the Infant Orphan School, Wanstead, Essex, £250; to the British Orphan School, £250; to the London Orphan Asylum, £250; to St. Ann's Society, Brighton, £250; to the

Shipwrecked Mariner's Society, Bucklersbury, £200; to St. Paul's Parochial School, Ball's Pond, £250; to the Fever Hospital, £200; to King's College Hospital, £200; and to the Benevolent Institution for the Relief of aged and necessitous workmen, of good character in the several branches of the watch and clock trade, £250.

About £70,000 has been paid by the government of Spain for the American steam ships Hibernia and Caledonia. Mr. Penn, the eminent Thames engineer, has been engaged at Liverpool surveying these vessels, with the view of determining their proximate value.

All operations connected with the Submarine Telegraph between England and France are now suspended till the spring. The interval will be employed in manufacturing the wire rope and other apparatus, so that the electric line may be completed by May.

Capt. Kennedy of the *Erin-go-bragh* steamer, who saved the *Ocean Queen*, value £5,700 from wreck, off the southern coast of Ireland, some time ago, has been awarded the munificent salvage of £30! for his exertions and humanity on the occasion.

A verdict of manslaughter has been pronounced at a Coroner's Inquest at Liverpool, on the body of a Lascar, against Capt. Rowles of the ship *New Liverpool*, recently arrived there from Moulmein.

Capt. Sir John Ros, R.N., took out with him on his voyage to Lancaster Sound four pigeons. Two of these messengers are stated to have arrived at Ayr, within a short time of each other, but without bringing any note. If this be true, it is the longest flight we have heard of.

The following munificent bequests have lately been made to the Marine Society.—The late James Peacocke, Esq. of the London Tavern, £100; the late John Curteis, Esq. £500; the late Alderman Lucas, £100; Sir Clifton Wintringham, £500; John Massie Esq., £9,908.

---

DIVISION OF BUSINESS AT THE ADMIRALTY.—At a sitting of the Committee on Salaries, the First Lord of the Admiralty (Sir F. Baring) having remarked that the Committee would perhaps like to know how the business at the Admiralty is divided, explained as follows:—

"Being in the House of Commons, I take the navy estimates and finances, also political affairs, all matters relating to the slave trade, the works in the dock yards, the patronage, and the general control. The First Sea Lord, Admiral Dundas, takes the state of foreign navies, the composition and disposition of the fleet, sailing orders, general regulations, fisheries, steam reserve, advance squadron, the appointment of lieutenants, pursers, masters, mates, midshipmen, and naval cadets, (that is, not the appointment, but the disposition of them), and second-masters, masters'-assistants, boatswains, gunners, and so forth. The Second Sea-Lord, Admiral Berkeley, superintends the department of the Surveyor of the Navy and Steam, including ship-building, steam machinery, repairs, defects, armaments, inventions, and engineers. The Third Sea-Lord (Captain Stewart) takes the discipline of the fleet, punishment returns, courts-martial, marines and marine artillery, coast-guard, rendezvous, manning the fleet, and complements, boys, and naval apprentices, the Excellent and gunnery, the dock-yard battalions, and the Hydographical department. Fourth Sea-Lord (Capt. Milne) superintends the department of the Storekeeper-General, the Controller of Victualling, and Medical Director-General, stores, contracts, troop-ships, transports, convict service, hospitals, victualling yards, Greenwich pensioners, civil pensions, pay and passages, miscellaneous cases, appointment of medical officers, and he has likewise taken the foreign yards. The Fifth, Civil Lord, (Mr. Cowper) superintends the department of the Accountant General of the Navy, the packet service, the civil affairs of Greenwich Hospital, the dock-yard schools, education, seamen's libraries, chaplains, naval instructors, post-office, and religious instruction.

ABSTRACTS FROM THE LOG OF THE ROYAL MAIL STEAM SHIP ASIA.

*From Liverpool to Boston via Halifax.*

| 1850. | Day of Week. | Distance. sailed. | Position at Noon. Lat. | Long. | Bar. | Wind. | Remarks. |
|---|---|---|---|---|---|---|---|
| July 13 | ..... | ..... | ..... | ..... | ..... | North | 0h. 3m. P.M. rec. mails & sld |
| „ 14 | Sun.... | 294 | 55 34 | 9 29 | 30·10 | Calm | Fine clear weather. |
| „ 15 | Mon... | 315 | 55 33 | 18 21 | 30· 0 | WSW. | Light airs, thick weather. |
| „ 16 | Tues... | 299 | 54 27 | 26 47 | 30· 0 | SW. | Do., hazy with head sea. |
| „ 17 | Wed .. | 297 | 52 47 | 34 54 | 29·90 | West | First strng breeze then lght |
| „ 18 | Thurs. | 303 | 50 47 | 42 7 | 29·75 | WNW | Strong winds and cloudy. |
| „ 19 | Fri. ... | 272 | 48 31 | 48 10 | 30· 0 | West | Fresh, thick, pasd 2 ice bgs |
| „ 20 | Sat. . | 290 | 46 16 | 54 30 | 30·40 | South | Lght wd, C. Race 3 mls dist |
| „ 21 | Sun.... | 303 | 44 52 | 61 16 | 30· 0 | SW. | Frsh, fog, 7·50 arr. off Halfx |
| „ ... | ..... | ..... | ..... | ..... | ..... | ..... | Harbour lying to all night. |
| „ 22 | Mon... | 105 | Sambr | NNW. | 4 miles | South | 4 A.M. steamed slowly up to |
| „ ... | ..... | ..... | ..... | ..... | ..... | ..... | Halifax, arr. at 9, left at 11 |
| „ 23 | Tues... | 278 | 42 21 | 69 13 | 30· 0 | West | First strng wind, then mod. |
| „ ... | ..... | 9 | ..... | ..... | ..... | ..... | 6·10 P.M. arr. Boston being |
| „ ... | ..... | 67 | ..... | ..... | ..... | ..... | 31 hours 10 minutes from |
| | | | | | | | Halifax, and 10 days 6 hours |
| | | 2832 | | | | | 7 minutes from Liverpool. |

The distance abreast of the 22nd is the distance from the previous noon to Sambro, and the 9 miles under the 23rd is the distance from the entrance of Boston Harbour to the Company's Wharf, and the 67 the distance from noon to the entrance.

A. HALL, *C. O.*

*From Boston to Liverpool via Halifax.*

| Aug. 7 | Wed. .. | ..... | ..... | ..... | 30· 0 | E.N.E. | 0h. 45m. P.M. rec. mails &sld |
|---|---|---|---|---|---|---|---|
| „ 8 | Thur .. | 265 | 43 32 | 65 15 | 30· 0 | E. | 9·10 arr. Halifax, left 10·45 |
| „ 9 | Fri..... | 241 | 44 50 | 60 1 | 30·10 | S.S.E. | Light airs and fine weather |
| „ 10 | Sat..... | 275 | 46 10 | 53 45 | 29·70 | Estly. | Light wind and dense fog. |
| „ 11 | Sun.... | 298 | 49 7 | 47 37 | 29·70 | S. W. | Mod. breeze, fog, high swell |
| „ 12 | Mon... | 299 | 51 49 | 41 2 | 29·65 | S. W. | Fresh wd, fog, psd ice bergs |
| „ 13 | Tues... | 323 | 53 40 | 32 50 | 29·65 | S.W. | Strong wind, dense fog. |
| „ 14 | Wed... | 289 | 54 31 | 24 52 | 30· 0 | Calm | Calm, swell, ship rollg much |
| „ 15 | Thurs. | 280 | 55 11 | 17 4 | 30·10 | E. | Fresh wind, cloudy. |
| „ 16 | Fri..... | 309 | 55 24 | 8 22 | 30· 5 | S.E. | Mod., Tory Isld ESE. 4 m. |
| „ 17 | Sat.,... | 233 | ..... | ..... | ..... | ..... | Mod., hazy, 7·30 A.M. arrivd |
| | | 9 | | | | | From Com. whf. to Boston. |
| | | 15 | | | | | From Sambro to Com. whf. |
| | | 2836 | | | | | At Halifax. |

*Summary Out.*

| | d. | h. | m. |
|---|---|---|---|
| Sled from Liverpool July | 13 | 0 | 3PM. |
| Arrived at Boston . . | 23 | 6 | 10 „ |
| | 10 | 6 | 7 |
| Diff. of Long. in time | | 4 | 44 |
| | 10 | 10 | 51 |
| Deduct for laying to | | 8 | 30 |
| Being—out | 10 | 2 | 21 |

Making an hourly average of 11·688 miles or knots.

*Summary Home.*

A. HALL, *C. O.*

| | d. | h. | m. |
|---|---|---|---|
| Sailed from Boston Sept. . | 7 | 0 | 45 |
| Arrived at Liverpool . . . | 16 | 19 | 30 |
| | 9 | 18 | 45 |
| Diff. of Long. in time . . | | 4 | 44 |
| Being—home | 9 | 14 | 1 |

Making an hourly average of 12·334 miles or knots.

*From Liverpool to New York.*

| 1850. | Day of Week. | Distance sailed. | Position at Noon. Lai. | Long. | Bar. | Wind. | Remarks. |
|---|---|---|---|---|---|---|---|
| Aug. 31 | Sat..... | ..... | ..... | ..... | 30· 0 | N.W. | 1h. 4m. PM rec. mails, & sld |
| Sept. 1 | Sun.... | 268 | Old H. | Kingsl | 30· 0 | N.W. | 2·25 C. Clear NNE. 1 mile. |
| „ 2 | Mon... | 291 | 51 35 | 16 21 | 30·30 | N.W. | Light airs and clear. |
| „ 3 | Tues... | 308 | 51 35 | 24 35 | 29·90 | S. | Strng wd., hazy, all sail set |
| „ 4 | Wed... | 309 | 51 2 | 32 50 | 29·35 | S.S.E. | Strong wd, cloudy high swl, |
| „ 5 | Thur... | 297 | 49 40 | 40 16 | 29·40 | SENE | First lght wd., then squally |
| „ 6 | Fri..... | 302 | 47 44 | 47 16 | 29·80 | N.N.E. | Strng, cloudy, mod high sea |
| „ 7 | Sat..... | 303 | 46 10 | 54 20 | 30·10 | N.W. | Mod., hazy, C. Race 10m.off |
| „ 8 | Sun.... | 293 | 44 53 | 61 1 | 29·90 | WSW. | Mod., thick fog. |
| „ ... | ..... | 112 | To Sa | mbro. | 28·80 | sw.nw. | 7·45 PM. distance run to Sam |
| „ ... | ..... | 18 | From | Sambr | o to W | harf. | bro blowing a terrific gale, |
| „ 9 | Mon ... | 18 | Abrea | t of Sa | mbro. | | dense fog, hauled off for a |
| „ 10 | Tues... | 289 | 41 3 | 68 3 | 30 | WSW. | clearance 4AM. more mod |
| „ 11 | Wed... | 269 | To Sandy Hook. | | | | arr. 10·10 landed mails, & |
| „ ... | ..... | ..... | ..... | ..... | ..... | | at 11·30 sailed again. |
| | | 3177 | | | | | |

Sep. 11th. Light wind and fine pleasant weather 7h. 15m. A.M. Fire Island abeam 10h. A.M. passed Sandy Hook and at 11h. 18m. A.M. ship time, arrived and landed mails.

A. HALL, *C. O.*

*From New York to Liverpool.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sept. 25 | Wed.. | ..... | ..... | ..... | 30· 0 | S.E. | Noon, rec. mails and sailed |
| „ 26 | Thurs. | 267 | 40 18 | 68 33 | 30·20 | E. | Fresh wind, and cloudy. |
| „ 27 | Fri..... | 257 | 41 30 | 63 5 | 30·10 | S.E. | Strong wind, cloudy, hd. sea |
| „ 28 | Sat..... | 276 | 43 17 | 57 10 | 29·90 | S.S.E. | Strng wd. cloudy, sea down |
| „ 29 | Sun.... | 301 | 45 48 | 51 10 | 29·80 | S.S.W. | Mod. fine, swell frm southd |
| „ 30 | Mon ... | 298 | 48 9 | 44 44 | 29·80 | N.W. | Mod. high rolling swell. |
| Oct. 1 | Tues. . | 288 | 49 54 | 37 54 | 29·95 | WNW | Lght, clear, high swell. |
| „ 2 | Wed... | 301 | 50 56 | 30 11 | 30· 0 | WNW | Ditto. |
| „ 3 | Thurs. | 297 | 51 10 | 22 11 | 30· 0 | N.W. | Ditto. |
| „ 4 | Fri.... | 301 | 51 17 | 14 1 | 80· 0 | N.W. | Ditto, 11 PM. C. Clear EbS. |
| „ 5 | Sat..... | 309 | Abrea | st of T | uskar. | 11h 10′ | Ditto, 8·45 P.M. rec. pilot, 11·55 passed Rock light, at 12·20 came to anchor. |
| | | 2895 | | | | | |

A. HALL, *C. O.*

*Summary Out.*

| | d. | h. | m. |
|---|---|---|---|
| Time on the Voyage . . | 10 | 22 | 16 |
| Add for dif. of long. 74° | | 4 | 56 |
| Being—out. | 11 | 3 | 12 |

Making an average of 285 miles or nearly 12 knots.

*Summary Home.*

| | d. | h. | m. |
|---|---|---|---|
| Whole passage . . . . | 10 | 12 | 20 |
| Deduct for long. 74° . | | 4 | 56 |
| Being—home. | 10 | 7 | 24 |

Making an average of 281 miles per day, nearly 12 knots.

ALEXANDER HALL, *Chief Officer.*

NEW AND CORRECTED CHARTS, AND BOOKS.

*Published in October*, 1850, *and sold by J. D. Potter*, 31 *Poultry.* *s. d.*

HOLYHEAD NEW HARBOUR, *J. M. Rendel, C.E.* 1850.

RIVER CLYDE, *Scotland from Greenock to Dumbarton, Capt. Robinson, R.N.* 1846. - - - - - - - - - - - - 2 6

DITTO *from Dumbarton to Glasgow, Capt. Robinson.* - 2 6

ISLES OF ARRAN, *Galway Bay, Ireland, Com. G. A. Bedford, R.N.* 1849. 0 9

BOUGHTON OR GRAND RIVER, *Prince Edward Island, Capt. Bayfield R.N.* 1843. - - - - - - - - - - - - - 1 0

QUODDY HEAD TO CAPE LEPREAU *New Brunswick, Capt. W. F. W. Owen, R.N.* 1848. - - - - - - - - - - - - 2 0

ROAD HARBOUR, *Tortola Island, Lieut. G. B. Lawrance, R.N.* 1848. - 1 6

GREAT BAHAMA BANK, *Sheet 2, Capts. Owen, Barnett, and Smith, R.N.* 1836, to 1843. - - - - - - - - - - - 2 0

GREYTOWN HARBOUR, *Mosquitia Coast, Com. Nolloth, R.N.* 1850. - 0 6

CHINCHORRO BANK AND ANCHORAGES, *Honduras, Capt. Barnett, R.N.* 1839. 1 0

PORT ALBANY, (*north-east Coast of Australia*). *Capt. O. Stanley, R.N. additions to* 1850. - - - - - - - - - - - 1 6

WESTERN ENTRANCES TO ENDEAVOUR STRAIT, *Torres Strait, addition to* 1849. 1 6

KAWAU ISLAND, *New Zealand, Capt. Stokes, R.N. additions to* 1850. - 1 0

THE SEAMAN'S GUIDE ROUND JAVA, *Baron Melvill of Carnbee, and round the Islands East of Java, by by Lieut. H. D. A. Smith Dutch, R.N.* 1850. 2 6

SOUTH AMERICAN DIRECTIONS, *2nd Edition Capts. P. P. King, and Fitz-Roy, R.N.* 1850. - - - - - - - - - - - 3 0

TO FIND THE LATITUDE BY AN ALTITUDE OF THE POLAR STAR, AT ANY HOUR IN THE NORTHERN HEMISPHERE, *William Salmon, Naval Instructor R.N.* 1850. - - - - - - - - - - - - 0 6

EDWARD DUNSTERVILLE, *Master, R.N.*

*Hydrographic Office, Admiralty, October 21st,* 1850.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory.
From the 21st of September to the 20th of October, 1850.

| Month Day. | Week Day. | Barometer. In Inches and Decimals | | Thermometer In the shade. | | | | Wind. Quarter. | | Wind. Strength. | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | S. | 29·62 | 29·75 | 56 | 63 | 53 | 65 | SW | SW | 4 | 4 | bcp (2) | bc |
| 22 | Su. | 29·94 | 29·92 | 58 | 63 | 51 | 65 | SE | S | 1 | 1 | o | bc |
| 23 | M. | 29·88 | 29·82 | 56 | 60 | 52 | 61 | SE | NE | 1 | 1 | or (2) | o |
| 24 | Tu. | 29·78 | 29·76 | 57 | 63 | 52 | 64 | NE | NE | 1 | 1 | o | bcp (3 |
| 25 | W. | 29·82 | 29 81 | 54 | 62 | 51 | 63 | S | S | 1 | 1 | of | bc |
| 26 | Th. | 29·83 | 29·80 | 58 | 57 | 54 | 58 | S | S | 2 | 4 | or 2) | bcp (3 |
| 27 | F. | 29·85 | 29·85 | 54 | 59 | 49 | 61 | SW | SW | 3 | 6 | bc | qbcp (3 4) |
| 28 | S. | 29·81 | 29·87 | 53 | 59 | 51 | 61 | NW | W | 5 | 3 | qbcp (1 | bc |
| 29 | Su. | 29·88 | 29·72 | 55 | 58 | 47 | 59 | SW | SW | 3 | 3 | bc | bcp (3 4) |
| 30 | M. | 29·42 | 29·83 | 48 | 58 | 43 | 59 | W | W | 6 | 5 | qbc | qbc |
| 1 | Tu. | 29·28 | 29·42 | 50 | 54 | 44 | 54 | N | N | 4 | 5 | bc | qbcp (3) |
| 2 | W. | 29·76 | 29·82 | 50 | 55 | 45 | 56 | NW | NW | 1 | 1 | o | bc |
| 3 | Th. | 29·90 | 29·91 | 53 | 54 | 47 | 55 | NE | SE | 1 | 1 | od (2) | o |
| 4 | F. | 29·91 | 29·89 | 52 | 58 | 46 | 59 | SW | SW | 1 | 1 | o | o |
| 5 | S. | 29·80 | 29·77 | 50 | 55 | 43 | 56 | SW | NW | 1 | 1 | bc | bc |
| 6 | Su. | 29·77 | 29·56 | 48 | 56 | 41 | 51 | SW | SW | 2 | 3 | bc | od 4) |
| 7 | M. | 29·40 | 29·54 | 53 | 57 | 48 | 58 | W | W | 8 | 8 | qbcp (1 | qbc |
| 8 | Tu. | 29 68 | 29·75 | 50 | 56 | 45 | 57 | W | W | 4 | 4 | bc | bc |
| 9 | W. | 29·95 | 29·96 | 44 | 54 | 41 | 55 | SW | W | 1 | 1 | bc | bc |
| 10 | Th. | 30·08 | 30 02 | 45 | 53 | 40 | 54 | N | NW | 3 | 3 | b | bcml |
| 11 | F | 29·92 | 30·00 | 43 | 45 | 40 | 46 | NW | N | 6 | 6 | qbc | qbcp (3) |
| 12 | S. | 30·37 | 30·37 | 43 | 51 | 37 | 52 | N | N | 5 | 5 | qb | qbc |
| 13 | Su. | 30 30 | 30·25 | 42 | 49 | 35 | 50 | W | NW | 2 | 2 | o | o |
| 14 | M. | 30·10 | 30·04 | 47 | 50 | 43 | 51 | SW | SW | 3 | 4 | o | o |
| 15 | T. | 30 06 | 30 08 | 45 | 51 | 42 | 52 | N | NW | 2 | 3 | bcm | bcm |
| 16 | W. | 30·08 | 30 08 | 41 | 55 | 35 | 56 | SW | W | 1 | 2 | bm | bm |
| 17 | Th. | 30·10 | 30·10 | 50 | 57 | 40 | 58 | SW | W | 1 | 4 | bc | bc |
| 18 | F. | 30 16 | 30·20 | 48 | 60 | 44 | 60 | W | W | 1 | 3 | of | bc |
| 19 | S. | 29·99 | 29 92 | 53 | 57 | 50 | 58 | W | W | 5 | 4 | qo | o |
| 20 | Su. | 29·92 | 29·90 | 52 | 53 | 46 | 54 | NW | NW | 2 | 3 | op 2) | bcp (3 |

September, 1850.—Mean height of the barometer = 30·190 inches; mean temperature = 55·9 degrees; depth of rain fallen = 1·61 inches.

Explanation.—b. blue sky; c. cloudy, broken clouds; d. drizzle, small rain; l. lightning; t. thunder; m. hazy; o. overcast, sky covered with one unbroken cloud; f. fog; p. passing showers; q squalls; r. rain; 1 morning; 2 forenoon; 3 afternoon; 4 night; intervals six hours each; semicircle, half; whole circle, whole interval of rain or passing showers.

THE

# NAUTICAL MAGAZINE

AND

## Naval Chronicle.

DECEMBER, 1850.

### Some Passages in the History of the Falkland Islands.

Having left the Pacific, we are now round the Horn. The Tierra del Fuego, (so named from its volcanoes,) and the last of the New World, *hornos* I leave to Capt. Fitzroy, who was so much interested about them, and to their fate, whether to that which may emanate from the white drainers of marshy lands, if their fancy should lead them thither; or to that which the intrusions of the seal hunters may bless them with!

I may just remark by the way that, these nether-end Americans resemble the Esquimaux of the Archipelago of the northern extreme, being low in stature, with broad flat faces, and noses. They have the reputation of being cannibals, at least, of having feasted upon two men who belonged to Lieut. Heremite's ship.

Both ends of this vast continent are remarkable on account of being split into a multitude of islands separated by lanes of water, or lagunes, as the Venetians term them; those of the south are disunited from the main land of Patagonia by a navigable channel, which the modern improvements in navigation will turn to account;* and although the series of islands to the south are for the most part swampy, volcanoes, are found in them. To the eastward, lies a more compact lump, Staten, or State's Land, so named by Mynheer. I do not know if he claims it according to the right which the civilized arrogate to themselves, because their faces are white; but conclude he is careless about the assumption as there are no *spices* there! Its appearance is uninviting, and that is one reason

* It is said by a good authority in whom we have much confidence, that, none but fore-and-aft vessels, or steamers, should use these straits from the Atlantic to the Pacific: there is much risk and much time lost thereby. But a powerful steam-tug, which might be supplied with coal from the penal Chilian settlement of Cape Arenas, would remove much of the difficulty. Four American vessels were lying stranded in the straits, in April last. The narrative of the *Fisgard's* passage, which appears in our volume for 1849, amply confirms the above opinion.—*Ed.*

perhaps why the "broad arrow" of the magnificent Mister Bull has not marked it for his own!

I believe it is not inhabited, although it lies but fifteen or sixteen miles from Fuego. This circumstance would appear strange did we not know that local attachment has its influence over the mind of the savage, as it has over that of the civilized being, whose best country, where necessity does not press, and choice remains optional, "is ever at home", for, from the accounts of voyagers Staten Land is far preferable to the other.

There is little doubt that if the land were cleared and cultivated, the climate would be improved to a certain degree*, with reference at least to the excess of moisture, and temperature.

Europe and America in corresponding latitudes will inform the incredulous reader that such amelioration of climate is not a speculative idea of the writer. Take the mean temperature of Lisbon and New York as a case in point; indeed, higher north, the clime of Lower Canada is improving, and will become milder as the woods disappear, and the soil is opened to the power of the sun.

Staten would be a "good spec" for an over-populated state, which does not know what to do with an over-abundant mass of hungry mouths, and idle hands; a condition which is present with almost every country of Europe save that of Russia.

Horned cattle no doubt would thrive in Staten Land, and the grasses, if necessary, may be improved; and it is not improbable that the valleys and lower slopes of the hills, might be turned to account in the growth of culinary vegetables. Old Sol however, is very sparing of his smiles, so that for many years at least, the grains of the different species of corn would not ripen.

The mountains are high, and may probably contain ores; these are irrespective of climate, and are productive anywhere.

Such a spot would not do for the Fidalgos, even if gold existed there; but it would suit the Dam-skaters to a tittle; there are plenty of fish, and marine mammalia, with which they are familiar; they are used to wet and cold; have all the aptitude of the Jew in realizing, the industry of the Chinese, and a courage equal to the endurance of any infliction from snow, ice, sleet, hail, rain, and stormy winds, or any effects produced from a low or high state of the barometric pressure of the atmosphere. Besides, this oceanic patch of earth is yet intact, a veritable maiden soil; and who knows but that some new species of spice may give to it the charm which Mynheer loves so much?

Another and another consideration starts up to entice him, as there is no lack of water, he may have dams to his heart's content; and, as to wind, and eligible positions for mills, he would have no reason to complain; and he may almost rest assured that there is coal, so what more could he desire? Embellished thus with canals and mill-dams, it would become the Netherland of the south.

* Of course partially on account of its limited extent.

Turning our prow toward the north-east, passing three or four small rocky islands, (Beauchene's), we arrive at, larger group, in the same corresponding latitude as the British Isles, and distant from the continent about 300 miles.

Although treeless, and apparently barren, and subject to every stormy wind, a great "hubbub" was made about these islands many years ago; the Don then figuring among the Potents of the earth, striving heart and soul to realize the fable of the dog in the manger!

Various names have been given to the group, such as Pepy's Land, Virginia, Maiden Land, Malouines, Malvinas, South Belgia, and Falkland; which latter the islands collectively retain. The whim and caprice exercised in naming lands were never more clearly exemplified than here. Navigators think they possess a license to act as they please in this matter; there is no controlling power in states to check or prevent the confusion which necessarily arises from the abuse of this liberty, although each maritime country has its Hydrographic Office. A combined system is all that seems necessary to set the matter right; but, in this as in all other where abuses exist; "what is every body's business is nobody's".

Who the first discoverer of the group was is uncertain; but the English navigator Cowley saw the islands in the year 1584; and Davis eight years after him; they were named the Falkland Islands by the voyager Strong in 1689, and upon the strength of this license, the English have adhered to the name. Mister Bull claimed them as his property probably from the belief that they were first discovered by one of his sharp-eyed mariners.

At the time (anno 1594) that the Dons were standing high, it is not surprising to us that their insufferable national pride displayed itself upon all occasions, and that they should have endeavoured to carry things, in accordance with a very high hand. Assuming a right to the New World from the generous grant of the Pope, they became excessively jealous of the approach of foreigners to the lands which they had usurped by virtue of such an absurd authority, even though the spots approached were insulated, uninhabited, apparently worthless, and at a remote distance from any of their settlements. It is recorded that "they surprised and terrified Europe by a sudden and unexampled influx of riches. They were made at once insupportably insolent, and might perhaps, have become irresistibly powerful, had not the mountainous treasures been scattered in the air with the ignorant profusion of unaccustomed opulence." No doubt Mister Bull was greatly chagrined at having missed the golden opportunity of being the first to add the Antilas of the New World to the geography of the Northern Hemisphere; but his spirit of enterprise being roused, he took time by the forelock, and so achieved the credit of having sighted the mainland before the wily Spaniard, though it now seems to be settled that neither Columbus nor Cabot was the original discoverer of the continent.

In those days, the French appear not to have possessed the genius for maritime discovery. The "Portingals," however, made themselves as busy as bees on a sunshiny morn, in hiving sweets from the blossoms of

the Oriental gardens. The Hanseatic League, acting upon the Germanic principle of taking care of No. 1, "a bird in the hand is worth two in the bush," had no time nor inclination, nor perhaps, tact if they had, for discovery, or "battling the watch" in predatory filchings. The livelier Italians, skilful marineros in Levantine navigation, were too fully employed with their traffic between Asia and Europe, to hazard a profitable pursuit near home, for a doubtful distant one, with the probabality of hard blows, which they were not in a condition to return with interest, though a countryman, a great genius, truly for the age, did not restrain his ambition to the area within the Pillars of Hercules.

It was the sturdy Briton alone, who, after having grafted the red and white rose of his parterre, began to seek exotics wherewith to beautify it. In his wanderings westward he was likely to encounter the haughty Don, but he was a match for him, and as time rolled on he became a formidable rival.

The Falklands were visited by the English in the reigns of William and Mary, and Queen Anne; the voyagers "thought nothing of them." Capt. Strong said they were woodless; and that clever old sea rover Will Dampier (of Norman extraction, probably from his name and propensity,) thought they were without water, (springs, we suppose). Some French vessels visited them, and by way of letting the world know that they had voyaged thus far from home, named them after the Port of St. Maloes. It was not, however, until Anson's voyage that any importance was attached to them. The author of the admirable narrative detailing the adventures attendant on the Centurion expedition, recommended the islands as a convenient place for vessels to stop at, on their voyage to the Pacific.

The hint was not lost on the statesmen of the day, as we find that, in the year 1748, an expedition was fitted out with the view of seizing them, and likewise for discovery.

The Spanish ambassador, Wall, by some means got possession of the secret intention, and opposed it with such vigour, under the plea that the islands were exclusively the property of his country, that the English ministry relinquished their intention, and deferred so much to the haughty Don, as to declare that nothing beyond an examination of the islands should take place. This concession shows the weight which the voice of Spain had at that period; but still it did not satisfy the ambassador nor his court, the submissive declaration made in London served rather to augment their jealousy. Sir Benjamin Keen, the British ambassador at Madrid, was closely and even uncourteously interrogated by Carvajal concerning the intended visit of the English to these uninhabited islands.

Mister Bull, thus more than suspected of sinister motives, kept on the political mask, and boldly reiterated his protestations, that he intended no wrong to the Spaniards, but the Don's jealousy was full to overflowing. St. Peter's deputy had given him a title; the islands, such as they were, not worth a groat to him, he claimed as his undoubted property.

The truth seems to be that, the Spaniard accustomed to the employ-

ment of sophistry and tergiversation, fully believed that the British minister was trying to outwit him; for which no doubt he felt highly indignant. It was, therefore, intimated to the minister, that such a curious plea as he had given, might be gratified with less trouble and expense than the fitting out of an expedition, as the ambassador was ready to communicate all that was known of the islands; that, to make so long a voyage for such a trifling purpose, would not be a reasonable act, especially as it might endanger the peace and amity of the two nations.

The British minister thus foiled, sullenly dismissed the intended expedition, but not his intention, as he cautiously avoided signing any declaration of what he might do at a future time. Thus the diplomatists of that day played their parts; he was thought to be the cleverest and the most sagacious, who showed himself the greatest deceiver.

When two schemers are well matched, the plea and replication of their cunning often neutralize the effect each intended; they become mutually deceived, yet unsatisfied; precedents are sought, but are followed only, when found, if quite convenient! The want of these foils however, often serves a turn. If diplomacy were conducted always upon principles of honour, justice, and integrity, how much would not the disputes of nations be lessened, and the peace of the world, which all profess to desire, be guaranteed by an honest and mutual exchange of wishes?

To the reflecting, it seems a perversion of reason to exercise public talent for deception, which, in private life, would only bring contempt upon the party using it for such a purpose. Still more extraordinary that the intent, should it prove successful, is lauded as a sign of undoubted skill, though the object attained be ever so despicable! The savage prides himself upon his consummate cunning, but his intellect has less to do in his schemes, than his animal sagacity; and if the refined diplomatist is guided more by his intellectual acquirements, it is because these have been gained by cultivation, and supply the place in a measure of the more natural sagacity, which equally belongs to him as a man. In him therefore, "outwitting" becomes a science; in the other, it is simply a natural art or instinct; but, if we may plead necessity for the savage, surely we are not bound to concede it to the civilized man of education, whose superior knowledge, religion, morality, and refined tastes, should cause him to shrink from an award so equivocal, or a comparison, which would place him upon a footing with the wild untutored denizen of the forest?

Up to 1764, other matters occupied attention. The Earl of Egmont was then intrusted with the management of naval affairs. It has been said of this lord of the Admiralty, that he was a man whose mind was vigorous and ardent; whose knowledge was extensive, and whose designs were magnificent; but who had somewhat vitiated his judgment, by too much indulgence of romantic projects and airy speculations.

Whether his lordship was a visionary or not, he dispatched Commodore Byron on a voyage of discovery round the world; the same officer who when a midshipman, was shipwrecked in the *Wager*, and suffered hard-

ships enough to have discouraged the son of a noble from pursuing such a life of peril. His original bent however, appears not to have been damped by such formidable dangers as he and the crew of the above named vessel experienced, for he lived to become an admiral, and to render good service to his country. The commodore, it appears, had private or particular instructions with respect to the Falklands: and it seems clear from the wording of those orders, the British minister considered the islands, according to the old rule of "first come, first have," as the property of England. In the beginning of the year 1765, the commodore took formal possession of the group in the name of his Britannic Majesty; by which act whatever doubts had previously existed were removed. Men have eyes, but all men have not the same vision. This is not more remarkable indeed, than that all having brains do not think alike; but it is a phenomenon nevertheless that is very curious. Byron thought the place "no despicable acquisition;" it was naked, indeed, of wood, but if that defect were supplied, it would have all that nature, almost all that luxury could desire! Water there was no want of; the soil was excellent, and covered with anti-scorbutic herbs—the restoratives of the sailor! Geese were so plentiful, that they could be had for the mere exertion of heaving stones at them. O! what luxuries were here in store for "Poor Jack!" These "luxuries" of the commodore, were such to the hungry palate of the seaman; let not the shore man revelling in plenty deride these things; he must live upon salted meats for long periods, and be threatened with the scurvy, before he would fully appreciate the value of a vegetable and fresh diet of the simplest kind; for, with respect to gout, the state of the stomach must decide; an unsavoury morsel that would be rejected at one time, (of plenty and choice) would when the appetite craved for supply, be as delicious as the morceau gras d'une eclanche of the gourmand. Every thing is relative in this world, intrinsic value is unknown to the hungry.

But, our commodore it appears, "not content with physic and with food, searched yet deeper for the value of the new dominion. He dug in quest of ore, found iron in abundance, and did not despair of other metals." "Other metals"! The very idea of its being claimed by Spain, must have suggested gold! The next year (1766) after Byron's visit, Capt. Macbride of the navy, was sent to Port Egmont, the name given to the harbour which had been examined by the commodore. A block-house and garrison were the first essay at possession de facto. Here is the captain's description of the islands, which the reader has only to contrast with that of the commodore to convince himself how little dependence can be placed in mere opinion. Our active and clever officer says that he found a mass of islands and broken land, of which the soil was nothing but a bog, with no better prospect than that of barren mountains beaten by storms almost perpetual, even in summer; and that if the winds of winter hold their natural proportion, those who lie but two cable's length from the shore, must pass weeks without any communication with it!

The flock of geese which the commodore spoke of, and which were

so numerous as to be equal to the supply of "armies of Patagons", had no doubt the sagacity after the rough treatment they experienced from the first hungry party, to keep aloof, as Capt. Macbride's men could catch only a few occasionally when the weather was favourable. Sea lions and penguins, "and such like vermin", abounded.

It is a fact, and one, too, which is valuable to an investigation of truth, that a single expression casually dropped by a narrator, lets us into the real cause of the impression upon his mind, and which, strange enough, is unsuspected by himself. It is possible, therefore, for a man to argue with an honest conviction that he is right upon a point that may be erroneous; for until the mist which obscures the vision of his mind's eye be removed, it is impossible that his judgment can be clear.

Attendant circumstances in a strange place affect the minds of two observers very differently, when each has a separate bias pre-occupying the seat of thought. Hence in many instances when mere opinion is offered, prejudice usurps the place of sober and intelligent discrimination. Something more than a casual view of external appearances is required to stamp a value upon the opinion of an observer; and that something no doubt was wanting here. For though truth may have been mixed up with fancy, it appears pretty certain that prejudice, pre-conception, the feelings of the moment, and the peculiar disposition of mind, gave the casting vote of decision on either side. A thing, that cannot be demonstrated by rule and compass, or by mathematical calculation at all times, is said to be open to objections. An opinion, therefore, may be considered to rest on a sandy foundation, and consequently liable to be upset; that it may often prove true would seem not to negative the supposed general fact; and we may be sure that when it is sound, it has the rock of truth beneath it for support.

A garden was planned and planted, but it failed: cattle, sheep, and goats throve and multiplied. Capt. Hunt next visited the islands. Mister Bull now thought that he had cleverly forereached upon the Don, his own wise saw telling him that "possession is eleven points of the law," but to his infinite surprise, a Spanish force made its appearance, and not only turned his garrison out "neck and crop," but treated his flag with great disrespect!

At this piece of presumption John became wrathful, and forthwith sent his "protest" to Madrid, demanding satisfaction for the offence done to his honour. Here we have the old story, old as, if not older than, the days of King David, that sturdy little hero who so puzzled the wits of Saul, of the aggressor claiming to be the martyr, because resentment forsooth had roused his ire! The Spaniard, by this time became painfully sensble of Mister Bull's growing power, and having been pretty well badgered by him, seemed to have lost his stomach for pushing things to an extremity, so excused himself by adapting the diplomatic resource, a fib! He disavowed the violence, and recollecting his severe drubbing, promised to restore all things at Port Egmont as they were before the enterprise! Yet, curious enough, in the midst of this seeming humility, it was added that, the restitution could not, nor ought any ways to affect the question of Spain's prior right of sovereignty to the islands!

With what little wisdom the world is governed, was never more clearly exemplified than in this paltry case; it can only be likened to the squabble of two cunning boys for a rotten apple. The British ministry, as if the very fate of the empire depended upon the success of the point, were greatly elated, and took credit to themselves for having managed the affair so cleverly; but it would seem that about a score of the aristocrats thought otherwise, and a long protest of seven articles of accusation, was entered upon the journal of the House of Lords.

We are not disputing the policy of the British minister, in his desire to hold the Falkland Islands; it is his vacillation we object to. Persons, of whom there are abundance in the world, who never attempt by drawing inferences from the present to look into the future, wondered what could possibly induce the minister, to be so pertinacious in his determination of seizing, and holding such an apparently useless group of islands. Whatever motive may have influenced the statesman of that day, it is now very certain that the possession of the islands is, and will be, of the greatest advantage to Great Britain. Trade, which was, and still is its fort, must progress with a race of men so energetic; a vast field for traffic lies in the southern hemisphere; at the time of the dispute, it was shut out from the foreigner, but a long course of events has opened it to him; and what better resting place for British ships could be found than the Falklands?

Whether the sagacity of Mr. Bull, looked thus deep into futurity or not, one thing is now certain, the possession of the islands to him is *un fait accompli*: they are secure beyond dispute, and if he uses his resources to good purpose, and sends out plenty of hardy colonists, there is very little doubt of the islands proving a valuable acquisition to him; and as he has not in this instance dispossessed any people of their right, the group having been uninhabited, he has nothing to reproach himself with.

The climate is stormy, but not very cold. The soil probably may be improved. Three of the islands are said to be large; peat abounds; this is an article of great value, a fact recently established; coal probably exists; the hills are of lime stone, a material in rural and domestic economy that is invaluable. The harbours are excellent; the running waters are never frozen, and the snow rests on the hills for only about two months. In all probability the trees of Patagonia would thrive here, and perhaps the coniferæ of the corresponding northern latitude.

As a preliminary step in all new colonies, the tracing and gradual completion of wide and well formed roads, is an imperative consideration. In these islands these ways should cross from shore to shore, longitudinally and transversely, and as the distance would be comparatively short, they could be soon completed; the connecting branches may be planned and finished at leisure, as the land becomes settled. Five hundred convicts might be profitably employed here alone; allowing the whole of Saturday to them, to work in grounds allotted to them for their own profit, and a part of Sunday, should be employed in the endeavour to instil religious and moral principles into their hearts.

As the islands abound in peat bogs, the proper people for colonizing

them would be the Irish, who are not only "bog-trotters" from habit, but are accustomed to the smell of peat smoke. In this moist climate Paddy would be at home, and as the hills are not higher than his beloved Curra's, the labour of ascent would be nothing new to him.

There is a tufted grass-like shrub, which appears to be peculiar to these islands, and upon which the kine thrive amazingly; and there are no doubt roots suited to the taste of the swine, so that Pat would be in "galore" here.

It seems probable, that, however destitute the islands are at present of wood, they were at an earlier period covered with forests, and that the remains will be found in the peat bogs, as evidence of the conjectured fact.

At present, under the new order of things, the group becomes the key of the Pacific, as well as a place of resort for the southern whalers; and, if we expend a moderate sum annually in the construction of a dock-yard, fortifications, &c., it may eventually become as valuable to us, with reference to the southern continent, as the Bermudas are with respect to the northern; perhaps more so, in one point of view, as the aggregate of land is greater, it might be made to supply our vessels of war, with beef and pork in any quantity, fresh and salted.

With respect to the dispute, we see that Mr. Bull carried his point without involving himself in a war. But although he did so, it does not appear to have been accomplished by his wisdom, his skill in diplomacy, or even from a desire to grasp a valuable land, but rather to have been a consequence from a disinclination of the other party to resort to the force of arms. S. J.

---

## Nautical Description of Laguna de Terminos, Yucatan.

*By Lieut. G. Lawrance, R.N.*

The entrance to the Lagoon may be looked on in the same light as that of the mouth of a large river, with this advantage, that you have scarcely any current to contend with*. Several rivers of some size empty themselves into the Lagoon, the principal of which is the Palizado, a branch of the Usumacinta, and which would naturally tend to create a considerable outset at this entrance, were it not that besides this mouth there are two other outlets for the water in the Lagoon to escape by, *i.e.*, that of Puerto Real, at the east end of Carmen, equally as wide as the one we are now speaking of, and another, the Escondido, the smallest of the three, a few miles still further to the eastward.

I shall now confine my remarks to the entrance, and add a few

* Except after heavy rains in the interior, when there may be an accleration of about a knot or so to the regular daily tide out of the Lagoon. The rivers are low in April and May, and swollen to their greatest height in August and September. It was surveyed during the dry season.

notes on the productions and capabilities of the port, from the best information that I could obtain whilst at Carmen.

*On making Laguna de Terminos.*

I must first observe that the Island of Carmen is very low, being covered with low bushes and trees, slightly broken and rugged, the tops of which are from twenty to thirty feet above the sea, with a straight white sandy beach which does not extend many feet from the water, forming its northern side. This beach, although not very remarkable, and the irregularity in the tops of the trees, give to Carmen a different appearance from the land to the westward about Point Xicalango, which has a straight, unbroken dark muddy shore, lined with dense trees, whose tops are much more regular in height, and vary little from being about fifty feet above the sea.

Endeavour to make the land about the centre of the island, as there is generally a set of about half a knot to the westward, and you will then also have the advantage of being to windward of your port when the sea breeze sets in,—usually north-east.

Having just sighted it from an elevation of fourteen feet, you will be about nine or ten miles of shore and in 7 fathoms, muddy bottom. Continue to close with it, by gradually edging away to the westward, and at the same time not shallowing the water, to less than four fathoms, until the Vigia* on the extreme western point of the island is distinctly seen, you will then be about seven miles to the north-east of it, and about three from the nearest part of Carmen.†

If intending to run into the harbour without a pilot, I would recommend that it should not be attempted by a stranger until the sea breeze had set in, which generally happens about the middle of the day, so that he would have a leading wind up to the anchorage off the town, or at all events as far as the Cascajal spit.

The navigation is by no means difficult, provided proper attention is paid to the bearings, which must necessarily be carefully attended to in consequence of the long distance the objects will be from the ship, particularly the Indian village: a difference of half a point in which, might place a vessel on the elbow of the bank outside the Punta de la Respinga. However, by remembering that the lead will be as good a pilot as might be wished for, by only paying proper attention to it, and steering by its directions on the western side of the channel, no danger need be apprehended.

The eastern side between Punta de la Respinga and Cascajal is so

* The Vigia is a white wooden look-out tower 45 feet in height, standing in the old fort of San Felipe: from it, signals are made to the town of the approach of Vessels.

† From this position you cannot see the town or any houses, but should there happen to be any vessels in the harbour, their mast-heads will be seen over the land.

steep, that the lead will not warn you of the danger, neither can the eye detect the line of shallow water, it being so very thick and muddy.

The bank of Punta de Respinga may generally be seen breaking with the usual sea breeze, and is then a good mark on going in or out. The Banco Seco (dry bank) is only one foot above water, and is of no use in the pilotage.

I may also state, that the obstacle to vessels entering the Lagoon, consists in having to pass over an extensive flat soft mud bank which extends from the shoals running off from the west point of Carmen to Xicalango Point, and which is certainly a barrier to vessels of greater draught of water than thirteen feet; but in the general acceptation of the word, it can scarcely be called a bar.

You may at times carry in nearly fourteen feet, but it is difficult to judge of the height of the tide, as much depends on the state of the rivers in the interior, and the local winds, a combination of which, tend to raise and lower the waters according to circumstances. The soundings shown on the plan have been reduced to the average low water, which happens every morning and evening; a certain standard having been adopted for those times. On one occasion during the survey, it fell nine inches below this zero point,* but that appeared to be an extraordinary low tide. The extreme rise and fall in the twenty-four hours, during the month of May never exceeded 1ft. 5in., but we registered the tide on two occasions 1ft. 6in., above the zero mark, and nine inches below, which gives a rise and fall of 2ft. 3in., during the time we were employed on the survey, which was in the whole of May.

All I can further say respecting the tides is, that there is generally a set into the lagoon from 10 A.M., to about 4 P.M., and that the entrance has the greatest depth of water about noon every day, when you may be almost certain of carrying in thirteen feet.

They also appear to be governed by the land and sea breezes, slightly effected by the natural tides.

At the anchorage off the town, the ebb may be considered to run out of the Lagoon from two to three knots, being strongest early and late, in the mornings and evenings respectively. The set into the Lagoon seldom exceeds two knots. In the channel abreast of Cascaja Point, it seldom runs more than a knot and a half, but it must be remembered, that these remarks are drawn from observations made in the dry season.

I am unable to decide on a standard for the port.

*To enter the Laguna, attend to the following directions.*

Supposing the Vigia to have been made as above mentioned; steer to the westward, keeping just outside the Three fathom line,† until you distinctly

* An evening tide.

† Shewing the Vigia bearing south, and the entrance of the Lagoon just open taken from the Three fathom line; a good position to wait for a pilot, or to anchor, if not intending to run in.

make out the Indian village,* and do not bring the right extreme of the western land, as seen from an elevation of fourteen feet, to bear to the westward of S.W.b.W. $\frac{1}{2}$ W. (mag.) until the Indian village bears S. $\frac{3}{4}$ E. (mag.), you will then be in about fourteen or fifteen feet. Steer direct for the village on this bearing, until Point Sagatel bears S.E. $\frac{1}{4}$ S. (mag.), then haul up, keeping the Point on this bearing; and when Palmer Bushes and the north coast of Carmen Island are shut in by the Vigia Point, steer for the anchorage off the town.

The best time to leave the Laguna is at daybreak, with the land wind, you will then be able to run out, and be clear of the shoals before it dies away. Attend to the same bearings as given for coming in.

Should it be necessary to beat in or out, you must make short boards (not more than three-quarters of a mile from the Two fathom line) along the western side of the channel.

The only way for a stranger to determine his exact position, with reference to its eastern boundary, would be by a bearing and an angle between the Vigia and Sagatel Point, or the Indian Village; but as these are rather distant, great care must be necessary to observe and project them quickly; especially if the ship has much way through the water, as the lead gives no warning as I have before observed, when standing in towards Punta de la Respinga, and Cascajal Spit.

From what I could learn from the pilots, it does not appear that the boundaries of the banks shift at all; therefore, nothing could be more easy than to stake off this eastern line of shallow water, and render the channel perfectly safe to a stranger under any circumstances. One large post driven into the mud on the spit of the Two fathom line off Punta de la Respinga, and another on the western edge of Cascajal Spit, so placed with reference to a prominent mark on the Sagatel shore, that when they came in one, they should denote the danger line for the eastern side of the channel, is all that would be required.

We found during our stay in the gulf, that the land wind blew very fresh from the S.E., from midnight to 10 A.M. every day: from what I could learn, it begins to be strong in March, and continues till the end of June, when the rains set in.

July, August, and September, are rainy months, and March, April and May, the dry. The other months of the year are not so decidedly dry or wet.

In October, the season of the "Norths" commences, and lasts until the end of March. Except in those winter months, or in a hurricane,† the anchorage outside in any depth that may be convenient, is perfectly safe for vessels, the bottom is soft mud, excellent holding ground.

* This is a rancho, or farm, with about ten thatched houses on it, on the low land, two miles and a half to the westward of Point Sagatel.

† I was told at Laguna that hurricanes seldom visit the southern coast of the gulf. The last occurred in 1831.

The line of nearest approach to the town, for an outer anchorage, is with the Vigia bearing S.S.W. (mag.), in this direction you will find eighteen feet at the distance of 4·8 miles from it, and twelve feet at 2·8 miles. Farther to the eastward, the Two and Three fathom lines close with the land.

Merchant vessels load down to thirteen feet inside (generally alongside the wharfs) and complete their cargoes at the outer anchorage. It is brought off to them in the country boats, called bongos, a large sailing canoe, rigged with two gaff "fore-and-aft" sails.

Of course there is a short breaking sea, on the bar, in a "norther;" yet, from what I could gather from the pilots, I think you might run in, in a vessel drawing ten or eleven feet, which will allow for a sufficient "send." The anchorage inside is, of course, perfectly safe in one of those gales.

The whole of Laguna is in the State of Yucatan. The Usumacinta, a river of some considerable size, separates the State from Tobasco, the next to the westward, the boundary on the sea coast, being at the mouth of the San Pedro, one of the branches of the Usumacinta, whose embouchure is about thirty miles to the westward of Point Xicalango.

The town of Laguna de Terminos contains about 2000 inhabitants. The whole district, comprising the shores of the Lagoon and the great logwood country on the banks of the River Palizado,* which is a branch of the Usumacinta,† and disembogues in the Lagoon, only contains from 8,000 to 10,000; 3,500 of whom reside in the Town of Palizado, situated on the left bank of the river, thirty-three miles from its mouth, and about fifty-four miles from the town of Laguna de Terminos.

The trade of Laguna is not confined to any particular country, although by the accompanying tables it will appear that the English, French, and Americans are the principal purchasers. This authentic statement may be taken as an average number of vessels that enter and depart from the port every year.

* The principal route to the ruins of Palenque is by this river. Com. Boylan, late of the Yucatan Navy, told me that from the town of Laguna, across the Lagoon to the mouth of the Palizado is about twenty-one miles; from the mouth of Palizado to the Usumacinta, is fifty-one miles; Usumacinta up that river by water to the Village of Chabte, is sixty-three; from Chabte, by land to Palenque. is from thirty-five to forty-five miles; making altogether from the town of Laguna to Palenque 180 miles; 135 of which is river navigation. You can accomplish the journey up, in the dry season in about a week, or perhaps less. Mules can always be hired at the Village of Chabte.

† In 1847, Com. Perry, U.S. Navy, in one of the steamers belonging to his squadron, ascended the Usumacinta, by one of its mouths on the sea coast, and dropped down to the town of Palizado; he was obliged to retrace his steps, there not being water enough at the mouth of the Palizado for the steamer to enter the Lagoon. The vessel drew I think about eight feet water, it might have been more. See Requenas notes on this river, translated by Lieut. W. Mooney.

*Statement of Arrivals and Departures of Vessels, and the Log-wood exported from this Port during the year* 1849.

| Flags. | Arrivals. | | Departures. | | Quintals* of Log-wood exported. |
|---|---|---|---|---|---|
| | No. of Ves. | Tonnage. | No. of Ves. | Tonnage. | |
| British | 39 | 6916 | 36 | 6227 | 164102½ |
| French | 33 | 7252 | 37 | 8230 | 216856½ |
| American | 26 | 4418 | 27 | 4618 | 93707½ |
| Bremen | 11 | 2264 | 10 | 2136 | 49008½ |
| Hamburg | 6 | 1032 | 7 | 1180 | 27599 |
| Prussian | 2 | 464 | 2 | 464 | 13445 |
| Spanish, | 2 | 463 | 2 | 463 | 11864 |
| Mexican | 7 | 323 | 8 | 388 | 1000 |
| Russian | 2 | 300 | 2 | 300 | 8122 |
| Danish | 2 | 264 | 1 | 132 | 2844 |
| Norwegian | 1 | 250 | 1 | 250 | 5283 |
| Sardinian | 1 | 164 | 1 | 164 | 5000 |
| | 132 | 24110 | 134 | 24552 | 598832 |

| From. | No of vessels | Ton. | No. of vessels | Ton. | Bound To. | Logwood Exported. |
|---|---|---|---|---|---|---|
| | | | | | | Quintals. |
| Vera Cruz | 69 | 12927 | 35 | 6018 | Liverpool. | 157933½ |
| New York | 12 | 2989 | 21 | 4786 | Havre. | 138480 |
| Campeche | 11 | 1534 | 14 | 2748 | New York. | 75757½ |
| Jamaica | 5 | 1274 | 10 | 2095 | Bremen. | 46210½ |
| Havana | 5 | 974 | 10 | 1783 | Hamburg. | 42741 |
| Guadaloupe | 3 | 963 | 4 | 1129 | Marseilles. | 29335½ |
| Sisal | 3 | 452 | 6 | 1182 | Vera Cruz in F.V. | 22951 |
| St. Thomas | 1 | 387 | 5 | 1008 | Bordeaux. | 22818 |
| Galveston | 2 | 262 | 1 | 363 | Barcelona. | 9364 |
| New Orleans | 4 | 245 | 1 | 284 | Stettin. | 9228 |
| Savanilla, New G. | 1 | 224 | 9 | 958 | New Orleans. | 9147 |
| Jacksonville Flor. | 1 | 176 | 1 | 249 | Trieste. | 7203 |
| Brazos Santiago... | 1 | 147 | 1 | 209 | Cork. | 6169 |
| Belize, Honduras. | 1 | 139 | 1 | 164 | Genoa. | 5000 |
| Tabasco | 2 | 95 | 1 | 167 | St. Petersburgh. | 4872 |
| Pensacola | 1 | 93 | 1 | 165 | Falmouth | 4101 |
| Mobile | 1 | 60 | 1 | 135 | Cadiz. | 4021 |
| Norfolk, Vir. U.S. | 1 | 60 | 2 | 165 | Havana. | 3502 |
| Tampico | 8 | 1109 | 1 | 379 | Gonaives, Isle of St. Domingo. | |
| | | | 2 | 239 | Tobasco. | |
| | | | 5 | 215 | Campeche. | |
| | | | 1 | 60 | Mobile. | |
| | | | 1 | 51 | Tampico. | |
| | 132 | 24110 | 134 | 24552 | | 598832 |

At present (May, 1850) the port is closed to imports, by a decree of

* 100lbs. Spanish make a quintal.

the Supreme Government of Mexico.* The consequence of which is that foreign vessels must first proceed to Campeche, Vera Cruz, or some other port of entry in the Republic, to pay their tonnage duty, where they land cargoes of dry goods, and afterwards come on here to receive a return cargo of logwood. This dye-wood is brought from the banks of the Palizado, Usumacinta and their tributaries, in large canoes, where it is cut by labourers called "Mocos," who are paid in advance by the person to whom the grant of cutting is given by the State, according to their labour, which in some cases amounts to an equivalent of 15 dollars per month.

The wood is generally sent to the vessels barked, in pieces about four feet long, and from six to eight inches in diameter. It is then purchased by weight, at the rate of 1s. 6d. or 1s. 8d. per cwt.

Articles for home consumption, dry goods, and other imports, find their way to Laguna in native boats from Vera Cruz, Tobasco, or Campeche. It may be said that the exports are formed exclusively of logwood, as shown below; in fact, this port and Tobasco are the two principal in Mexico from which logwood is exported, scarcely any is now shipped at Campeche.†

The revenue on *Imports* from foreign ports was, for 1849—

| | | |
|---|---|---|
| About ..... ..... | 44,000 | dollars. |
| On *Exports* ..... ..... | 16,479 | logwood. |
| | 264 | other produce. |
| | 16,743 | |

The rate of exchange, at par, is 4,44 (four dollars and forty-four cents).

The pilots are not authorized by law to bring in a vessel drawing over twelve feet, for which sixteen dollars (£3. 6s. 8d. sterling) is the regular charge; but, for a consideration, which they call "a gratificacion," and which custom has made equal to an additional doubloon, they will bring in a vessel drawing thirteen feet; the same rate is paid on taking the vessel out again.

Firewood is sold at about one dollar per chord, but it may be cut on Point Sagatel in any quantities, close to the beach. Good fresh beef may be bought at 3d. per lb.; Vegetables, at 2d. per lb.

Spring water, from a pump close to the landing at the north end of of the town, is obtained by paying three dollars for its use, whilst the ship is in harbour.

* The State of Yucatan has yielded to circumstances, and gladly returned to its former position under the Mexican flag, since 1848, when the Indian war of extermination began.

† See tables in Mr. Requena's pamphlet.

Vessels can "heave down" to the wharfs, or to other vessels, as most convenient. The jetties have from thirteen to eighteen feet water alongside of them; more might, of course, be gained by running them farther into the harbour.

We have a Vice-Consul here.

The town is governed by a "Gefe Politico," (Political Chief). There is also a military commandant: a sinecure at present, for there are scarcely any soldiers in the place. The Port of San Felipe had originally four guns in it; these were rendered unserviceable by the Americans, when they took the place in 1847, and have not been replaced, neither is it likely that they ever will be.

Laguna can scarcely be considered to be more than a large village; it was beginning to arrive at a degree of respectability, when on the 18th of April, 1850, about a third of it, comprising all the principal merchants stores and houses, amounting altogether to 145, were burnt to the ground: 500,000 dollars worth of property was destroyed.

The re-building had already commenced when we were there, and the inhabitants were in expectation of seeing the town resume its former appearance before another year should expire. It has two small churches, one of them unfinished; there are no other public buildings.

Earthquakes are seldom felt here.

The island of Carmen is considered to be very healthy. The only fevers that occur are in the rainy months (July, August, and September,) when fever and agues may be expected in a mild form.

In the latter end of May, we were twice visited by swarms of mosquitoes; they generally came off the low marshy lands at midnight, with the land wind, and remained until the sea-breeze had fairly driven them back again. Had their visitations been constant, I think they would have fairly made us leave the place.

The whole of the shores of the Laguna, are low and swampy, we were told that for two or three days before a "norther," the mountains of Palenque, which are said to be sixty miles inshore, appear very distinctly from Laguna. Whilst they are visible, a strong land wind blows, which on the morning of the third day ceases, and the gale blows home on the coast. During the whole of our stay at Laguna, (in May,) we did not see this high land.

The country is much infested with tigers, alligators, snakes, and other reptiles. Wild cattle are numerous; good fish did not appear to be plentiful in the market; young sharks were great favourites.

On Carmen there are no tigers, but deer are to be met with.

The *Vigia* is in lat. 18° 38′ 44″ N., long. 91° 51′ 22·05″, relative to Capt. Barnett's longitude of the church at Lerma, from which it was measured, and was considered by him to be in 90° 36′ 42″ W.

The scale was determined by a measured base on the beach, to the westward of Point Sagatel.

## Oral Traditions of the Cinque Ports.—*By Mr. K. B. Martin, Harbour Master, Ramsgate.*

(Concluded from page 441.)

Properly to appreciate the value of steam-propelling power, we must draw some few comparisons with days gone by; and when we consider the strong prejudices it had to combat—the extraordinary difficulties its infant progress encountered in the apprehensions of the timid, and the opposition of the interested, we shall find reason to admire the persevering industry of those individuals who (having expended their wealth and talent upon its improvement) have brought it to its present useful and efficient state; for although our transatlantic brethren took the lead upon their large rivers and lakes, a very few years have sufficed to send us a-head of every competitor for maritime fame. Steam in our sultry colonies, during the Burmese war, lent its powerful aid to the conflict; and our government packets, propelled by the most beautiful machinery in the world, now pass with ease and rapidity into distant seas; and we have reason to believe that, in the event of any sudden rupture with surrounding nations, we are prepared to maintain our maritime ascendancy, and shall be able to *out-steam*, as we have already *out-sailed* them.

The passage from London to the Isle of Thanet, by fast sailing packets, had existed many years, and, as far as good pilotage and nautical skill could command success, was brought to very great perfection. The vessels were handsomely modelled, fleet under canvass, and possessed excellent accommodations for one hundred passengers, on a short voyage; and, with a fair wind, numbers would crowd on board for a passage to Margate, or Ramsgate. But the elements are fickle, and the voyage begun in pleasureable anticipations too often terminated in delay and disappointment. On these occasions the passengers' provisions became exhausted, and ill humour seated itself beside the empty hamper. Many would depart, and, pursuing their journey by land, leave their less wealthy brethren to cavil about their turns in the sleeping cabins, or annoy the captain with endless and frivolous complaints.

I commanded one of those vessels six years; and I believe it was in June 1815, that, on my passage from Ramsgate to London, my companions, with great alarm, pointed out to me an object at some distance in our head-way, which they supposed to be a vessel on fire. We had a fresh and fair gale, and crowded all our canvass; but as we neared the chase we soon perceived our mistake; it was the steam-boat *Margery* (alias the *Thames*), which thus had nearly put to shame the old proverb, for although she did not "set the Thames on fire," she certainly made a great smoke upon its surface. We sailed round her easily, as she had not sufficient power of machinery, and was, moreover, a very clumsy model: her engine was equal to the strength of fourteen horses: vessels of her tonnage and width now carry engines of united capacities

equal to sixty, and some eighty horses. Nothing could exceed the ridicule which my passengers bestowed upon this unseemly vessel; some compared her to a jaded donkey, with a huge pair of panniers to its sides, others to a smoke-jack, &c., &c. I felt ashamed at the annoyance we were giving, and sheering off pursued my passage. I fancied (in spite of my sailor-like prejudices) that I could see the future triumph of steam in short voyages; and when I was afterwards informed, that this vessel had been from Port Glasgow to Dublin, and from thence to London, having traversed 1,500 miles of sea, some part of it in tempestuous weather, I felt surprised and astonished.

This vessel established herself in the Margate packet trade, by one month's trial; emulation filled her with passengers, for our London friends swaggered as much at having made a passage by steam, as if they had returned unsinged from old Pluto's dominions. In the following year, the *Majestic*, built at Ramsgate, and fitted with an engine of twenty-five horse power, was considered a gigantic concern, and her crossing the Channel to Calais, with two hundred passengers, and returning without accident, was a feat highly appreciated; but this vessel was destined to establish the ascendancy of her class, over every other means of water conveyance. We were detained by calms and weak tides, in the Margate and Ramsgate sailing packets, two days. The steam-boats passed and repassed us loaded with passengers; the third night caught us at anchor in a sudden and heavy northerly gale; we lost much of our gear, and alarmed our passengers, and on the following day, in the height of the gale, had the mortification of seeing the *Majestic* make better weather of it than ourselves, and convey her passengers safely and quietly into Margate harbour:—here were four of the best of the Margate, and two Ramsgate packets, beaten and put to shame. We were now rapidly superseded by steam navigation, and went with our vessels to Calais, Ostend, Antwerp, and Rotterdam; but steam followed us up, and annihilated our trade upon all those stations, in about four years from its first appearance on our coast.

In 1820, the first steam-vessel was prepared for Ramsgate. I was offered and accepted the command of her. This vessel, called the *Eagle*, had two engines of Bolton and Watt's best construction, and were equal to forty-horse power. She is now his Majesty of Denmark's steam yacht. I had every reason, in all kinds of weather, to be satisfied of her complete efficiency. Since that period, in the continual command of steam-packets, I have in no one instance been obliged to anchor upon the passage, or put back to port in consequence of any fault, accident, or defect in the steam machinery. It is, as at present used and fitted to marine purposes, a beautiful aud safe application of power when placed in careful hands; and I remember very few instances of failure, with any of the vessels, except through the folly of racing, or under the influence of undue and malignant opposition.

It cannot be expected, that among so great a number of vessels as are now propelled by steam on the coasts of the United Kingdom, that accidents similar to those experienced by sailing packets will never occur;

but they will be few indeed when the capacities of steam-vessels are considered; as, for instance, their power of leaving a lee shore, or of assisting the anchors by the aid of their machinery, and of stopping almost instantaneously, and retrograding from danger, &c., &c.; and, as the commander of a steam packet, I consider it my duty conscientiously to state my opinion, that, inasmuch as human life is the most valuable cargo a man can be entrusted with, and that any sudden and serious alarm may, in many instances, be fatal in its future consequences, although not immediate in its effects (particularly to females,) too much care and attention cannot be paid to the conducting of such vessels, and their owners are highly reprehensible, if the consideration of a few pounds in salary or emoluments, prevent their employing in their service men of science and intelligence, sober in their habits, and officer-like in their regulations and deportment. The power vested by law in the hands of the commander of a merchant vessel is dangerous, if improperly placed. Any subordinate individual may be removed from his duty by the captain, or arrested for misconduct; but if the man in whose sole charge is the direction of the crew, and the well-being of the passengers,—if the captain, whose control ought to be undisputed, is mad enough to drown his faculties and talents in inebriety, the situation of the whole is deplorable indeed.

But, to return to the subject, and the superiority of steam-packets to sailing vessels, on the score of safety: during a period of six years, in sailing packets, my return of passengers conveyed, amounted to 3,107 persons. With these I witnessed many unpleasant casualties, from the breaking of spars, and coming in contact with other vessels, and in more than one instance attended with loss of life. In twelve years, up to the present date, in the command of different steam vessels, I have had under my care 128,047 passengers, not one of whom received the slightest personal injury.

If a sailing packet, to or from London and Ramsgate, conveyed 800 passengers in a month, it was thought an extraordinary affair; yet during the last four weeks, our returns in the *City of London* steam-packet, give 5,356 persons.

How beneficial is this to the health of this great and populous city! Thousands embark daily on board steam vessels, to inhale fresh vigour from the ocean breeze. Let us then be grateful for these advantages, procured through the medium of civilization and science. Population increases; but, in a land of freedom like ours, the fertile genius of man will invent and bring into play every useful art for its relief. Were it not for the power-loom, millions would be indifferently clad, who are now attired in comfort and comparative elegance; and but for the engine which sends the majestic prow through opposing winds and yielding waters, thousands might still have crept a mile or two from home, in lieu of gathering shells upon the margin of their native land. Let us here leave the subject, in pleasing, peaceful retrospect; for, should the blast of war assail our ears, steam navigation is destined to become one of the best weapons in the face of our country's foes, and, let us hope, a means of its future protection, safeguard, and defence.

Since these pages were written, the steam engine has been greatly improved, would it were so as regards the consumption of fuel, but while the symmetry of the vessels are admirably adapted for speed, it is a libel upon the present age of chemical discovery, to see the dense volumes of carbon darkening the air, in lieu of being detained beneath the boiler and converted into flame. The *City of London* performed her 100 miles with four tons of fuel in ten hours, Vessels of the present day travel the same distance in eight hours, with an expenditure of eight tons. Where is the triumph here? She made the passage of sixty miles to Ostend in six hours and a half, with three tons and a half of fuel. The present beautiful packets, perform the distance in five hours, but their waste of fuel is enormous, their consumption more than double, their profits, nil! The screw-propeller was ridiculed when first invented, but I am of opinion that the day is not very far distant, when rotary engines, applied to screw-propellers, will supersede all others for marine purposes, enabling war steamers to carry a more perfect battery, and merchant vessels to combine sail and steam on long voyages, and to carry a remunerating freight. When I commanded steam packets, they were said to be in their infancy. They have not advanced proportionately with other inventions. Speed has certainly been attained, but the fast vessels by their enormous increase of expenditure, threaten to ruin their proprietors, who as parents may indeed be said to have reared from infancy prodigal children to their own ruin!

K. B. Martin.

---

## The Maldives of the Indian Ocean.

The islands are uniformly level, without hill, valley, or running stream of even the smallest dimensions, being simply the tops of coral reefs raised a few feet above the ocean level, and covered with a greater or less depth of vegetable mould. The soil appears to be exceedingly rich, and the vegetation luxuriant, the cocoa-nut, palm, and bread fruit especially, growing spontaneously wherever an accumulation of sand and soil takes place above high-water mark. During our stay here the climate appeared to be most beautiful, the air being exceedingly pure and soft, and the sea breezes gentle and uniform. Why these islands are so unhealthy, I will endeavour to explain presently.

The poet talks somewhere about "sunrise on the Indian main;" and certainly the scenes I have witnessed among these beautiful islands, if seen by a Stanfield or a Carmichael, would either fill him with the highest enthusiasm, or cause him to cast away his pencil for ever in despair. The crystal purity of the sea, dark blue in the deep water, and the most brilliant green upon the coral reefs; the exquisite and ever-changing tints of the light morning clouds; but, above all, the effects of light and shade, created by the level beams of the rising sun upon the graceful cocoa-nut palm, and the luxuriant foliage which covers those sunny isles to the water's edge, must surely be seen to be

conceived ; and yet, after all, if more beautiful, it is altogether without that joyousness which is the great charm of early dawn in Europe.

In dear old England, if, after a stormy night, or, still more, after dull and louring weather the day before, you have a lovely sunrise, it diffuses a joyousness which seems to float in the very air, and to shed its delightful influence upon every living thing, both small and great; but here, the promise of a beautiful day calls forth no choral hymn; the woods are silent; their tangled recesses swarm only with insects and reptiles; and the song of birds, the lowing of cattle and the hum of awakening industry, are never heard.

I think there cannot be a doubt that these islands, if cultivated, would be exceedingly productive; and from their geographical position, and the people's fondness for nautical pursuits, they would easily get rid of the surplus to an advantage, which would stir up a spirit of commercial enterprise, and lead to great prosperity. The few plants of foreign growth, which I have seen brought from Ceylon and Calcutta as objects of curiosity merely, thrive exceedingly well, in spite of the absence of anything like regular training. But there are no symptoms of anything of the kind at present. In bartering their cocoa-nuts and other spontaneous productions the natives are rather sharp and dexterous men of business; but beyond that they are the most indolent and self-satisfied people in the world, and spend their lives in a round of idleness, innocence, and contentment. Being rigid Mussulmen they are very temperate and cleanly in their personal habits. From wine and spirituous liquors they totally abstain, and seem to look upon them with great contempt. I recollect one day at Villigille, Don Callifan gave some of the islanders a description of a scene he had witnessed once at Mali between two English sailors, which produced great laughter; and although I could not understand one word of what he said, yet the pantomime with which he illustrated it was so expressive that I had no difficulty in comprehending the meaning of the whole affair. He first showed how, having had an altercation, they stripped to the waist, and placing themselves in attitudes, they commenced to beat each other with great force and rapidity, until the exchange of a black eye for a bloody nose was considered sufficient to satisfy their anger, and heal their wounded honor. This recital was received with peals of laughter; and the words "fools" and "brandy" (the Alpha and Omega of a British sailor's enjoyment on shore,) were bandied about with great freedom. Several of them asked me, through an interpreter, if it was possible that Englishmen would do such things; and I confess I felt not a little ashamed and annoyed to be obliged to admit the "soft impeachment."

The natives are very good-natured, cheerful and affectionate one to another; and violence and quarrelling are extremely rare. What detriment they have suffered by abstaining from wines and spirits, I cannot tell; but the benefit they enjoy from habitual temperance is self-evident from their cheerful and happy lives, and the total absence of all those brutal habits and passions that degrade polished nations. The awful

example of some of the South Sea islands, where the labours of the missionary have been followed by the arts of the trader and the seductions of drunkenness and vice, until the once numerous and happy islanders have been nearly destroyed, would almost induce one to hope that the Maldives may long escape from the feeble and inefficient labours of the one, and the duplicity and villany of the other; for it is painful to reflect that the introduction of "rum and true religion" will elevate them in the scale of civilized nations at the expense of morality, health, and happiness.

The women are not kept in privacy, as is mostly the custom with Mohammedan nations, but walk about quite unrestrained. They wear a long dress reaching from the throat to the ankles, with bracelets and anklets of brass, and their hair tied up in a large knot on the top of their head. Their young children go quite naked, but with a large silver chain passed ten or twelve times round their loins, and a long necklace of red beads, from which depends a great number of rupees, half-rupees, and other coins. Capt Moresby says, "Their women are not pretty, but are extremely alarmed at the sight of strangers." But we soon found that this shyness began to wear off; and before we had been ten days upon the islands, they would come to our tent, and hang about for hours, without the least reserve. They are very sociable and fond of singing and dancing. Their songs are sometimes humourous. The one which was the greatest favourite amongst them, appeared to me to be an angry dialogue between an old man and woman, and was of almost interminable length. The singers exert themselves to the very utmost pitch of their voices, which are harsh and discordant in the extreme; and the concluding note of each verse is drawn out in a long, peevish, querulous drawl, which is most excruciating to European nerves.

Nothing is more difficult, even to a scientific inquirer, than to assign any satisfactory reason for the deadly sickness which hangs over some portions of the earth's surface. The natives of the Maldive Islands, appear to be always more or less affected with fever; but at certain periods it assumes the form of the most deadly pestilence, and carries off great numbers. They ascribe this to the devil, and told us "that they could see him coming;" which is so far remarkable, as it would seem that they can discern some peculiar state of the atmosphere, or murky cloud which bears upon its wings the Angel of Death.

While at Villigille we strongly impressed upon them the necessity of clearing away the underwood and decaying vegetable matter, even if they did not cultivate the land. To this they replied that when a small body of them first came to colonize this very island, they cleared it to a great extent, and cut avenues through the wood in various directions; yet they had scarcely got this work finished, and the island planted all over with pieces of stick, to which were attached pieces of paper having inscribed upon them select passages from the Alcoran, than the devil came and carried off twenty-five of their number at one fell swoop!

We visited one island, and heard of several others, where every inhabitant, man, woman, and child, had died in the course of a few days.

The prevalence of sickness may be ascribed to the dense and unculti-

vated state of the forests, which prevents a due circulation of air—to the enormous quantity of vegetable matter in a state of decay, which as is well known in these days of scientific knowledge, loads the air with gases inimical to animal life, aided by the stagnant rain water and excessive moisture—but principally to the quality of the water used for drinking and domestic economy. As ablution is a part of their religion, their best wells are close by the side of their cemeteries, and frequently within their precincts. Now, when it is remembered that these islands are wholly of a coral formation, which is so exceedingly porous that it may not unaptly be compared to a piece of petrified sponge, it cannot be doubted that the whole becomes chemically impregnated to a great extent; and as their wells are seldom more than six or seven feet deep, and are left without any cover both night and day, however pure and cool the water may appear, there can be little doubt that it is the "poisoned chalice" upon whose brim lurks the subtle agent of disease and death. If ships visiting those islands were well supplied with pure water, especially if preserved in iron tanks, their crews would most probably escape the fever; and one ship has recently come within my knowledge where this was actually the case.

On several occasions, when we complained to the Sultan's officers of their want of hospitality, they justified themselves by pointing to the treatment several of their countrymen had received from the English at Ceylon and other places, who, when they had the misfortune to be shipwrecked, were not only plundered and ill-treated, but refused every kind of redress by the authorities, and were left to starve, or find their way back to Maldive without assistance; and the reason why I state this fact, in conclusion, is, that if ever the substance of this journal is sent to the press, it will be principally with a view of awakening the public to a sense of the necessity there is for a more liberal system of hospitality between all commercial communities, of which England, in all her relations, should be the foremost to set the example.

*Cochin, January*, 1850.

---

## Notes on the River San Juan de Nicaragua.

No. 1.—From the Port of the San Juan to the Colorado, sixteen miles: Banks, low, swampy, averaging 8 feet in height, ground composed of sand and rich alluvium, clad with a high coarse rush or grass, called by the natives "Gamalooti", and lined by hard wood trees: landing very difficult. Width, from 100 to 250 yards: Current, various according to the season, the average is one and half knots. I found it in February three miles an hour: Depth, very variable from two feet to twelve.

There are many islands between these two points formed of the deposit sent down by the stronger stream, above the Colorado. In fact, the Colorado is the main stream, and the River San Juan slackens

as it turns off from it. Freshes occasionally clear a deep channel at this part of the river.

We saw alligators, guanos, monkies, and macaws, and heard some charming mocking birds. Unless the Colorado can be turned into the San Juan, the latter will in a few years be rendered useless for navigation.

No. 2.—From the Colorado to the Serapequi thirteen miles: Banks are more defined, about fifteen feet high and composed of firm alluvial soil. Trees are about eighty feet. "Gamalooti" grass not so frequent. Width, from 200 yards to a quarter of a mile: Current, averages two knots per hour; I found it frequently five knots: Depth, close to the Islands of Culebras, Juanillos, Gitante, &c., the river is very shallow, in many places scarcely three feet, otherwise it may average twelve feet, and in notes that has elsewhere been asserted as five fathoms.

Observation,—the change in position of the shoals occasioned by the freshes.

Banks more prominent and dotted with trees of greater magnitude, rising to the height of 100 feet. Sarsaparilla and cocoa plants were observed, and we landed at a hut on the left bank above the Island of Gitante, surrounded by a plantation of plantains, bananas, sugar cane, and vegetables. Current gradually increased as we approached the Islands of Antequira. Continued rains to within a few miles of Serapequi, but air more balmy and agreeable. Heard many charming songsters, and a bird that made a cry like a dog barking. We saw some large baboons, and heard the panther or spotted tiger.

The post of Serapequi is situated on the southern or right bank, and at the point a little below the junction of the two rivers the width of the Serapequi at its entrance is about 150 yards.

No. 3.—From Serapequi to the River San Carlos, seventeen miles: Banks, higher, firmer, and more distinct: the underwood under magnificent trees rising to the height of 150 feet, the larger of which were the eboo, cotton, and cedar; curtains of flowering creepers were suspended like veils from their boughs, doubling in rich folds to the river. In parts the banks rise to sixty feet, and are composed of red ochreous earth.

Width, from 150 to 300 yards: Current, from three to four knots: Depth, from two and half fathoms.

Rapidity of current, viz: about a mile above the Isle of San Francisco the river takes a bend, and by meeting an abrupt bank forms a whirlpool (Ramillino) where the water is deep. The varied foliage of the trees from this spot to the river San Carlos is very beautiful.

From River San Carlos to Machuca Rapids, sixteen miles: hills from 200 to 500 feet high approached the banks on both sides. Trees along the river of a large size. Islands still in centre of river: Width, 200 to 250: Current, from two to two and half knots (decreased after passing River San Carlos): Depth, from three to six fathoms.

Observation—Machuca Rapids; to the foot of the Rapid the current is

considerably less than before the Rio San Carlos was passed, principally owing to its great depth. The largest timber yet seen.

Distant, from Machuca to the Toro Rapid fifteen miles as before said: Banks, as before said: Width, about 200 yards: Current, from six to seven knots an hour: Depth, varies from two feet to ten.

Broken water at the Rapid Machuca across the entire river, large stones constantly travelling with the current when the river is on the rise. No depth of water except in the centre, which is difficult and dangerous to ascend by. Trees grounded, washed down by current. About one mile in length.

### *The Rapid de los Balos.*

The current is not so strong, nor the rocks so numerous, nor the distance more than a quarter of a mile.

### *Rapid del Mico.*

Longer than the Balos, but even freer from stones.

### *Rapid del Castillo.*

Extends across the whole breadth of the river, has a fall of *five feet in* 100. Runs at the rate of from eight to ten knots, and is broken by large rocks in the centre and at the left bank at its foot. The right bank up which the boats ascend is shallow, so that it is necessary to guide the boat from the bow to free her into deep water.

Although the Rapid del Castillo is the most formidable in point of appearance and rate of current, it is not so difficult to ascend, owing to the advantage derived by having a tracking path by its side.

The Machuca owing to its great length, and many impediments is in reality the most difficult and dangerous to pass, both in ascending and descending the river.

The trees have lately been cleared away from Castillo Viejo, and stockades formed along the low banks at the bottom of the hill, on which the castle stands, commanding the entire reach of the river Carlos.

The river might be made impregnable at little expense or trouble.

The Island Juana which Lord Nelson established as a temporary Hospital is about a mile below the Castle, and is covered with trees, and surrounded with "Gamaloot" grass.

### *From the Toro Rapid to San Carlos.*

Banks, commence to be flatter than at the rapids, trees smaller, "Gamalooti" grass more frequent, debris suspended by palms fringing the river; when within twelve miles of the latter, banks begin swampy, landing almost impossible. Trees still smaller, undergrowth underwood (rank) and cotton.

Width, from 180 to 250: Current, slow at the sides, scarcely perceptible: Depth, from two to four fathoms.

From the Toro Rapid the trees become more slanted, and the appearance of the banks shew approach either to a flat swampy country, or lake. The musquitoes here are more than usually troublesome, and the smell from the marshy lakes very disagreeable. There are many small rivers and reaches of no importance in which several vagrant Indians dwell. The castle of San Carlos is built on a bold promontory on the left bank at the head of the river, commands both down the one and across the other. It is now in ruins, formerly it must have well merited its name as the "Gibraltar" of America.

---

## Hurricane at the Navigator Islands, *Pacific.*

*Sydney, 4th June,* 1850.

Sir.—Annexed I forward you an account of a hurricane encountered by the barque *Nimrod*, taken by me partly from the ship's log, partly from the notes published by Com. Espinesse. I also forward the *Sydney Morning Herald* of the 1st inst., containing an abstract from Capt. Edwin Courtenay's letter to me dated Upolu, 16th of April, 1850, and as their publication in your widely circulated work cannot but prove instructive, I shall only further add that they evidently shew it to be imperative on all masters of vessels to make themselves acquainted with the Law of Storms, not only as Mr. Piddington observes in his invaluable Horn Book, "profiting by storms," but that also by keeping the sea they are enabled to avoid the vortex which deals destruction to islands, as well as ships, that lie in their track; therefore, not always making them desirable for refuge. Some time since I noticed an extract from the *Dundee Courier* as follows:—"Capt. Moorsom when commander of the frigate *Andromache* at Mauritius in 1826, making it most remarkable, because executed before the theory of Storms was understood, leaving H.M.S. *Ariadne* in Port Louis Harbour at the wish of her commander, Capt. Moorsom put to sea with the wind at S.E. veering to S.S.E., predetermined to steer without regard to the compass, and to keep the wind as it veered always on the larboard quarter. He had come to this decision from attentively studying the log book of ships which had encountered hurricanes in the neighbourhood of Mauritius, and observed that the wind veered in a uniform manner. By steering as described Capt. Moorsom gradually carried his frigate away from the centre of the storm, until he gained its opposite side and moderate weather, then having the wind at N.E. brought his ship upon the starboard tack in order to return to the Mauritius, which port she reached uninjured". By comparing extracts from the two log-books it appeared that the *Ariadne* in Port Louis Harbour, was in the centre of the hurricane and had the storm very severely; whilst the *Andromache* by putting to sea, and being steered, &c., so as to keep the wind on the port quarter had comparatively moderate weather. I am, &c.,

Samuel Ashmore.

*To the Editor N.M.*

| Date. | Time. | Head. | Bar. | Wind. | Remarks. |
|---|---|---|---|---|---|
| | | | ° / | | |
| Feb. 10 | 12 A.M. | N.N.W. | 29 70 | N.E. | |
| | Noon | | 68 | | Lat. obs. 17° 38′ S. long. 161° 26′ E. |
| | 4 P.M. | Wore E.S.E. | 66 | | ⊙ set fiery hy. dse. cl. E. to S.E. & N.E. |
| | 12 " | | 60 | hd. gl. | 9 P.M. furled foresail, gale increasing. |
| " 11 | 4 A.M. | | 50 | NEbE. | |
| | 8 " 9 | Wore N.N.E. | 50 | E.b.S. | |
| | Noon | | 58 | | More Mod lt. obs 18° 3′ S lg. 160° 16′ E. |
| | 2 P.M. | | 50 | | Hard gale and torrents of rain. |
| | 3 " | | 40 | | Gale in. housed t.-glt. mts. & mzn. t.m |
| | 4 " | | 37 | | |
| | 8 " | | 35 | | |
| | Midnt. | | 30 | E.S.E. | Hd. gl., no intermission betwn. the sql |
| " 12 | 4 A.M. | | 10 | | Blw hd gl crd away fly jb-bm in the iron |
| | 8 " | | 00 | | |
| | 10 " | | 28 90 | S.E. | Tremendous puff, mod. aftr. severe sql. |
| | Noon | | 85 | | |
| | 3 P.M. | | 76 | S. | |
| | 4 " | | | S.S.W. | |
| | 5 " | | | | Moderating. |
| | 8 " | Kept away to NE to run out of gale. | 75 | WSW. | Sky open, • showing, quite moderate. |
| | 8 30 | Rounded SSE | | | Increasing with heavy squalls. |
| | 10 " | | 70 | N.W. | A sudden shift, now becomes a hurr. |
| | Midnt. | | | | |
| " 13 | | | | | Hurricane terrific. |
| | 8 A.M. | | 50 | | 7h. 30m. A.M. cut away fore-top-mast. |
| | 10 " | | 45 | | |
| | 11 " | | 40 | W. | |
| | Noon | alws on S. tk. | 35 | | Hurricane blowing gradually stronger. |
| | 2 P.M. | | | | Hurricane increasing. |
| | 3 " | | | WSW. | Ship on her beam ends, bar. still fallg |
| | 3 30 | | 30 | | |
| | 4 " | | 20 | | Cut away the main mast. |
| | 6 " | | 20 | | 5h. Heavy sea, struck the ship. |
| | 8 " | | 30 | | Hurricane if anything incr. till. 7½h. |
| | 10 " | | 50 | | After lulled at times, betn. the squalls. |
| | Midnt. | | 30 | | |
| " 14 | 3 A.M. | | 29 10 | | |
| | 6 " | S.S.E. | | S.W. | |
| | 8 " | | 35 | | |
| | Noon | | 50 | S.W. | Moderate, bore up for Sydney. |
| " 15 | Noon | | 68 | S.S.W. | |
| " 16 | 1 P.M. | West. | | S S.W. | |
| | 7 " | W.S.W. | | S. | |
| | 1 A.M. | S.S.W | | S.E. | |
| | 5 " | S.W.b.S. | | | Lat. obs. 18° 33′ S. long. 161° 12′ E. |

Extract of a letter from Capt. Courtenay, of the brig *Two Friends*, dated Upolu, April 16th, 1850, to Capt. Ashmore.

" We left Auckland on the 23rd March, passing through Outer Barrier, about midnight. It was my intention to have gone to the eastward of Pitcairn's Island, as I thought it possible we might encounter a

hurricane, but at the same time not very probable, as it was getting so late in the season, though I had been in one so late as April; the time that the *Anastatia*, and two American ships foundered. I was baulked in my intention of going to the eastward, by a hard gale at south-east, so I compromised the matter by standing to the northward. Everything had gone on well until Thursday, 4th April, wind then strong at south-east, Tootooillah at noon, N.b.E. sixty-five miles. Strong wind at south-east and squally. 1 P.M. split fore-topmast studding sail. 2h. 30m. P.M. took in main royal; 5h. thick and squally; in flying jib and top-gallant sails. Not seeing the land at sunset took in boom and square mainsail, and double reefed; steered N.b.W. At 8 P.M. steered north; 9 P.M. N.N.E., and 9h. 30m. north-east,—considering the ship then between Upolu and Tootooillah. At 10 P.M. just after a heavy squall, the look-outs shouted, "Land and breakers on the lee bow:" jumped to leeward, and there they were, breaking as high as the lower yards, not more than 300 yards; luffed, and the brig came up to east; got boom and square mainsail on her, and she reached out, and soon lost sight of them. Shortly afterwards she broke off N.E.b.E. wore to the southward; now blowing very hard with tremendous squalls: fore-topsail blew away: looked at barometer, found it 29·80; wind, south-east.

"2 A.M. Friday.—The topmast staysail blew away; wind south-west, barometer 29·40, brig's head S.S.W.; barometer gradually falling, until at 9 A.M. it was 29·00; wind still steady at south-east; cut the foresail from the yard and saved it; wind steady at south-east until midnight. Barometer, 29·00; brig doing well: close reefed main-topsail.

"1 A.M. Saturday.—Every appearance of a hurricane; barometer fell to 28·90, 2 A.M., main-topsail blew to ribbons; brig then gunwales in; at this time a sea broke over the quarter, carrying away the wheel-ropes, broke main boom, took boat from stern, broke pilot boat's keel and stern-post, and smashed the gig lying on port side of quarter-deck. At 4 A.M. barometer fell to 28·85, wind then began to shift to S.S.E. and south; brig's head to south-west.

"Daylight a sea broke over the bow, stove in the fore-scuttle, took away the cabouse, stove, and coppers, leaving nothing but one frypan; washed away tarpaulin from after hatchway, and a considerable quantity of water got below; with difficulty got all secure again; sounded, and found three feet water, hands to the pumps and sucked her: 9 A.M., the barometer 28·60, wind S.b.W., brig gunwale in; at 10 A.M. top-gallant sails and mainsail blew out of the gaskets, main-top-gallant-mast blew off by the cap, the yard likewise going in the slings. Brig now frequently leading blocks in the water; stove lee water-casks, and got rid of the deck load; harness-casks, full, washed over lee rail: noon, hurricane awful, upper part of round-house in water, companion and skylight stove, considerable water going below, and in through the lee dead-lights, which were completely under water. At this time, two full casks of water were washed over main boom and gaff, they being

lashed to main rigging, about ten feet from the deck: 1 P.M., wheel ropes and relieving tackles carried away again, got them secured; barometer 28·60; 2 P.M., 28·50; 3 P.M. 28·45; wind south-west, brig's head N.W.b.N At 4 P.M.. barometer fell to 28·35, hurricane howling; lee bulwarks, part of rails, and stancheons going, wind complete drift. At 5 P.M., barometer 28·20, wind then S.S.W., head north-west: at 6 P.M., barometer 28·10: awful, expecting to see the masts go; but although prepared to cut, wished to hang on to them as long as possible; half of deck in water, sea a complete drift; unable to see the jib-boom. At this time remains of main boom, gaff, and boom mainsail washed away; cut off all to clear the wreck of the stern. Not able to stand against the wind without holding on. At 7 P.M., the barometer began to rise, although no apparent abatement of the wind; 8 P.M., wind west, head N.N.W.; 10 P.M., W.N.W., head north, barometer rose to 28·50; midnight 29·00.

Sunday.—Still blowing very hard, with squalls and high sea. Employed clearing the wreck; got some tea made in a pitch pot; I stood the first watch until one hour past midnight, (the chief officer being laid up,) and then turned in the first time for ninety hours. We got a foresail bent, and steered to the eastward, then bent two old topsails, and found our way in here: had we had more than one suit of sails we could have proceeded on our passage. But it is an old saying, that it is an 'ill wind which does not blow some one good', for although we were sufferers in the first instance, we found three vessels stranded at this island—the *Favourite*, of London; *Hercules*, of New Bedford; and *Clara*, schooner, high and dry on the reef. They had the storm on Friday, the wind shifting suddenly round from north-west to south-west, with barometer 27·15, and I think near the centre of the storm, the barometer with us must have been about 27·80, as my barometer ranges high.

"I never saw so much change as there is in the appearance of this island—before it was a complete garden, and green to the summit of the hills; now it looks as if it had been swept over by fire—all the trees stripped and dead, and cocoa-nut trees lying in all directions; there is hardly a house standing on the island.

"It will make about fifteen days difference in our passage, but with barometer at 27·80, we ought to be thankful we escaped so well, especially as we were hove to, on the breaking off tack. This is the severest hurricane that has taken place in the memory of the oldest residents on the islands. The American ship will soon go to pieces, her stern-post and keel being out. The *Favorite* might, had we the means here, be got off. The *Clara* is high and dry at low water, and there is not more than four feet rise. We have got our sails bent, and top-gallant masts on end, and shall be on the road again on Saturday, and you may depend she shall not want the muslin".

## The Antilles.—*Sombrero, Anguila, St. Martin, &c.—Described by Capt. E. Barnett, R.N., late of H.M.S. Thunder.*

(Continued from page 624.)

*Coco Island,*—Coco Island the southernmost of these islets lies due south six tenths of a mile from the bold high bluff which forms the east side of Ance de Grande Saline; this is a narrow, rugged, rocky islet, slightly wooded on its summit, and about one quarter of a mile in length from north to south, with a small rock nearly connected to its north end: it is steep to on all sides, particularly at its south end; but it is not advisable to pass inshore of it.

*Les Roques or Little Turtle Rocks.*—Three-quarters of a mile to the eastward of this island, and nearly one and half mile S.b.W. from the east end of St. Barths, are two very small rocky heads close together, called the Little Turtle Rocks, or Les Roques; they are steep to, but being only three or four feet above the level of the sea, are very dangerous if rounding the island close, in the night time.

*La Tortue.*—La Tortue is a small flat-topped rocky islet lying half a mile from the north-east point of the island, to which it is connected by a ledge of dry and sunken rocks; and a quarter of a mile to the north-east of it are the Granadins, a small ledge two or three feet above the level of the sea, steep to on its north-east side, and on which the sea generally breaks heavily.

*Toc Vers.*—Toc Vers is a small pointed rocky islet, the northern and outermost of those we are describing. When seen from the east or west its north point resembles a lofty pillar, standing close by the side of the perpendicular cliff which is about 120 feet high, and is very remarkable. It is steep to on its north and west sides.

*Fregatte and Bonhomme Islands.*—Fregatte and Bonhomme are two large islands of considerable elevation, scantily clothed with grass and low wood, and are readily distinguished; the latter is separated from the north-west side of St. Barths by a clear channel three-tenths of a mile wide; but it is not advisable to pass to the southward of either of these islands.

*Sugar Loaf Island.*—The Sugar Loaf Island is very remarkable, having the exact form which its name imports, when seen from any direction. Although similar in appearance to the Grouper as already observed, its position and greater elevation being 181 feet above the level of the sea, readily points it out: it lies nearly one and a half mile west of the harbour of Gustavia, and serves as a good guide to strangers for finding the entrance; it is clear on all sides and steep to, except the north, from whence a narrow ledge of dry and sunken rocks extends in that direction nearly two-tenths of a mile: at its extremity there are two small rocks about four or five feet above the level of the sea which are steep to.

*Gustavia.*—The harbour of Gustavia is situated on the south-west

side of the island one mile and a half to the north-west of the south point; the only part of it however that can be termed a harbour is the inner part, or little arm of the sea, which runs in to the south-east, called the Carenage, on the sides of which the town is situated; but, it will only admit vessels of five or six feet water, and which for want of an outlet at the inner end, is filling up by the debris washed down from the steep heights which bound it. The outer part is a commodious and safe anchorage during the prevailing winds, but being exposed from the south by the west to north-west, it cannot be safe in the hurricane season, and it will not admit vessels of greater draught than seventeen feet.

Ships, however, of the largest size will find tolerable anchorage under the land, from the islet to the west end of the island.

The Carenage is 2,500 feet long, 650 feet wide at its inner part, and 400 at the narrowest part of the entrance. It is bounded on its south-west side by a rocky ridge of moderate elevation terminating at its south-east end in the little sandy bay or cove of Ance de Gallet, the shore of which is only 300 feet from the head of the Carenage; and at its north-west end by a bold abrupt headland on the summit of which is Fort Oscar of four guns, which is 136 feet above the level of the sea. On the north-east side it is backed by a ridge of wooded hills, 266 feet in height, terminating in a precipitous acclivity, on which is Fort Gustavus IV, 170 feet high, which protects the entrance and points out the locality of the harbour to a stranger, the town being quite out of sight even at a short distance.

The outer harbour or anchorage is confined in a square space about three cables in extent, which may be entered from the south-east, south, or west. The south-east channel is between the Saintes and the shore: the Saintes are three small low rugged islets nearly connected to each other, the two largest by a dry ridge, and the smallest or westernmost by a shallow ledge which extends from it towards the Bluff of Fort Oscar to within 350 feet of the shore, leaving a channel of only about 200 feet, not half a cable's length; too narrow, and dangerous for a stranger to attempt, particularly as when under the high land, the wind is so very variable that your ship is not under full command, and this is also to be observed in navigating the other passages, particularly when the breeze is strong and to the northward of east.

*South Channel.*—The South Channel is between the Saintes and Les Islettes, which are two remarkable barren rugged islands lying north and south of each other, separated about 100 yards at their base by a coral ledge; the northern one elevated 98 feet above the level of the sea.

From the south-east end of the southern island a ledge with two small low rocky islets, extends off to the distance of half a cable, where it terminates by the smallest of these rocks, which is very steep to. Between this rock and the north-west Saintes is the channel, which is a quarter of a mile wide.

With the prevailing wind, to enter this way, get well to the eastward, and run the Saintes down close on board within a cable's length, and

haul sharp round the end rock, against which you may almost rub your sides; should the wind be from the E.N.E. you will most probably not fetch the anchorage, therefore keep your ship well under your command, so that you ensure staying. You may stand towards the Islettes without fear: a ledge extends off a little more than a ship's length from the north and east sides, which being seen by the discoloured water is readily avoided. Should you weather this you may stand boldly over to the shore as far as is necessary to enable you to fetch a berth. If you do not weather the Islettes, there is room to make a short tack to the eastward; should however, the wind be so far to the northward under the shore, it is better for a stranger to enter by the western channel, between the Islettes and the shore, which is 450 fathoms wide, and the only danger to be avoided is the foul ground off the north end of the Great Islettes before noticed. If coming from the eastward you may do this by passing either outside the Sugar Loaf, or between it and the Islettes; if you pursue the latter route, haul close round the west or outside of the Baleine, a small dangerous rock, awash, which lies nearly a quarter of a mile to the westward of the Islettes, and tack at your pleasure, in shore. The Baleine is steep to, and the channel is clear between it and the Islettes, but the wind baffles about so much here that it should not be taken.

We have only again to observe that, in navigating either of these channels, you must be prepared to act against the heavy gusts and flaws of wind which rush through the valleys, and which enforce quickness and strict attention to the helm, to enable you to keep your ship under command; a pilot, however, is always in attendance. After passing Coco Island the shore is clear and very steep to the west end of the island. There is anchorage for a small vessel in Ance de Saline, also at the west end of the island in Columbier Bay. The whole of the northern shore is fringed by a reef, through which, however, in the Bay of St. Johns there is a small opening which will admit a small vessel.

*Tides.*—By inspecting the chart it will be perceived that the islands we have described lie upon a distinct bank of soundings, and may therefore be termed and described as a group of themselves. At all of them we find a rise and fall of the sea of from one to two feet, but so irregular, that we cannot define any period for high or low water. The following observations made by Dr. Fahlberg, a visitant of these islands for a long period, are valuable; and will no doubt give the best information on the subject.

" About the Island of St. Bartholomew, the flood at new and full moon runs south-east, and it is then high water at 10h. 30m. P.M. while the sun is farthest to the north of the equator, but comes about two hours sooner in the following months, till the sun gets farthest to the south, when it is high water at 10h. 30m. A.M., and it runs afterwards in the same proportion back again. The winds which are of long continuance, sometimes make a trifling difference. The sea is always lowest at the time when the sun is farthest to the north of the line, and so to the contrary."

During the period of our survey between the months of November and March, we could detect neither tidal stream nor current among these islands, except on one or two occasions while at anchor in Crocus Bay at Anguilla, we swung to a weatherly or easterly stream; and once only experienced a westerly current of one mile per hour to the eastward of S. Bartholomew, after a lengthened period of strong breezes from the north-east quarter. We found no difficulty in beating up from one island to the other.

Vessels running through between St. Bartholomew and St. Martin should pass to the northward and westward of the Table Rock, and those bound to the harbour of Gustavia should open the Sugar Loaf to the southward of the island before passing to the east end, to avoid Les Roques.

## Ancient Naval Records.—*Charles the First.*

Of the various ancient naval records which our friend John Barrow, Esq., the indefatigable chief of the Record Office in the Admiralty, has enabled us to present to our readers, the following are among the most important, being the order for the embargo on the ports given by the Board of Admiralty to prevent the escape of the unfortunate King Charles the First, and then to make him prisoner, issued not three months before his execution. We believe it is the first time that these curious documents have been made public, and their appearance at the present period, we are bound to say, has been purely accidental. The historian will appreciate them as being to him important documents, as well as that by which they are followed, viz: the order, relieving the ports from the embargo laid on them by the first, the king having been readily found at Carisbroke Castle in the Isle of Wight, conveyed and securely lodged there by the Governor Hammond from Titchfield. Our object is simply to attest the originality of the entries of the above documents as they are, among the valuable records of the Admiralty, which records, thanks to the assiduity of Mr. Barrow are most delightfully accessible.

Die Veneris, 12 Nov. 1647.

By vertue of an order of the House of Com'ons dat this day severall l'res were now issued to severall Ports and Capt$^{s}$ of ships in forme following viz$^{t}$.

After o$^{r}$ heartie comendac'ons.

Notice being come this morning to both Houses of Par$^{lt}$ that his Ma$^{tie}$ is w$^{th}$-drawne from Hampton Court in such sort that they know not as yet how he is disposed of, and least some persons disaffected to the peace of the kingdome, should prevaile with him to pass beyond the seas w$^{ch}$ would much obstruct those wayes to a firme and settled peace y$^{t}$ are now in agitac'on before the Parliament.

Wee doe therefore (by vertue of a speciall com'and given us in charge)

pray and require you forthw^th^ to make stay of all ships, barques, & vessells whatsoever in yo^r^ port, or any the creeks, passages, or members thereof, and not to suffer any of them to passe till further order from the Parliam^t^ or this Com^tee^. As also to seize and make stay of his Ma^ties^ person, & of all and every other person or persons that shall come w^th^ him, and all passengers whatsoever repairing to yo^r^ port w^th^ intens'n to pass beyond sea, any war^t^ or pass to him or them granted notw^th^ standing. And of yo^r^ proceedings to give a diligent accompt from tyme to tyme to y^e^ Parliam^t^ or this Com^tee^, & for the better performance hereof, you are to give it speedily in charge to all yo^r^ subordinate officers to take care for the effectuall execuc'on of the promisses, & so wee rest

Yo^r^ very loving friends,

Pembroke Henry Mildmay,
J^no^ Trever,
Edm. Predeaux,
Den Bond,
Jo. Lisle.

From the Com^tee^ of Lords and Com'ons for y^e^ Ad^ty^ and Cinque Ports sitting at Westm^r^ 12 Novemb. 1647.

To o^r^ lo. friends the Custom^rs^ searchers and other officers of the port of

| | |
|---|---|
| Sandwich, | Rye, |
| Southampton, | Poole, |
| Weym^o^, | Lyme, |
| Excester, | Dartm^o^, |
| Plim^o^, | Great Yarm^o^, |
| Harwich, | Kingston upon Hull, |
| Pembroke, | Newcastle upon Tyne, |
| West Chester, | Bristoll, |
| Gravesend, | Leverpole, |
| Dover, | Scarborough. |

---

To o^r^ loving freinds the Gov^r^, Maior, & other Offic^rs^ of y^e^ Towne of Portsm^o^. To o^r^ &c., the Maior of the Towne of Berwicke, & to the Custom^rs^ and other Officers of that port.

To &c., the Cheife Offic^rs^ of the Port of Brighthelmston Hastings. in y^e^ County of Sussex.

Signed these two

E. Pembr, Col. Marten, Mr. Green,
Capt. Crowther. Col. Rainborow, Mr. Bence.

Notice being come this morning to bo^th^ Houses of Parliam^t^ that his Ma^tie^ is w^th^ drawne from Hampton Court in such sort that they know not as yet how he is disposed of, and least some persons disaffected to the peace of the kingdome should prevaile w^th^ him to pass beyond the seas, (w^ch^ would much obstruct those ways to a firme and settled peace, that are now in agitac'on before the Parliam^t^), Wee doe therefore, (by vertue of a speciall command given us in charge,) pray and require you to stop and search all ships, barkes, boates, and other vessells whatsoever w^ch^ you shall meet w^th^ all at sea. And in case yo^u^ shall find abord any of them his Ma^ties^ person you are to make stay of him, and of all w^th^ him, and of all other passengers whatseover any pass whatsoever notw^th^ stand-

ing Giveing the Parliam$^{t}$ or this Com$^{tee}$ an accp$^{o}$ of yo$^{r}$ proceedings,
And so we rest Yo$^{r}$ loving freinds,
From the Com$^{tee}$ &c. Pembroke Henry Mildmay, John Trever,
12 Nov. 1647. Edm. Predeux, Den Bond, John Lisle.
To o$^{r}$ loving freind Capt. John Crowther.
Vicead$^{ll}$ of Ireland on bord the Bonadvent at Bristoll, the same to Capt.

| | | |
|---|---|---|
| Thomas Beddall, | Capt. of the | Advent frig$^{e}$. |
| Tho. Harrison, | | Mary Hope. |
| Henry Jervoise, | | Fellowship. |
| Wm. Penn, | | Assurance frig$^{e}$. |
| Richard Willoughby, | | Nonsuch frig$^{e}$. |

Instructions for Capt. Formes were signed in forme foll.

Whereas the ship under yo$^{r}$ comand is one of the squadron appointed to ply from the Downes to the Landsend These are therefore to will and require you to saile w$^{th}$ the said ship by the first oportunity to the Downes, & there to attend Col. Tho. Rainborow, Comand$^{r}$ in cheife of the Fleete whose derect'ns you are from time to time to follow for the Parliam$^{ts}$ service.

Observing likewise our generall Instructions and improveing yo$^{r}$ best endevo$^{rs}$ for protecting of Trade, the preventing of supplies to the Rebells of Ireland, & the surprizeing scattering and destroying of all frigats and other vessells set forth by them, or any other in hostility ag$^{st}$ the Parl$^{t}$. And for the premisses this shalbe yo$^{r}$ warr$^{t}$ dated at Westm$^{r}$ 12 Nov. 1647.

To o$^{r}$ lo freind Capt Richard Fermes Capt. of y$^{e}$ Warwicke frigat. The like to Capt. Francis Penrose, Capt. of the ship Hector.

Die Lune, 15 Novemb. 1647.

In pursuance of an order of the House of Com'ons issued this day, these l're to y$^{e}$ severall parts were now signed viz$^{t}$.

After o$^{r}$ heartie comendac'ons.

Whereas by a l're from this Com$^{tee}$ dat the 12$^{th}$ of this instant you were ordered to shut yo$^{r}$ port and make stay of all ships and passengers going out from thence till further order from the Parliam$^{t}$ or this Com$^{tee}$. These are by vertue of an order of the House of Com'ons in this behalfe to authorize and require you forthw$^{th}$ to open yo$^{r}$ said port, and to permit and suffer all ships and vessels, and passengers, to pass as formerlie, the said restraint notw$^{th}$standing. For w$^{ch}$ this shal be yo$^{r}$ warrant. And so wee rest,
Yo$^{r}$ loving friends,
Henry Marten, Den Bond, Alex. Bence.
From the Com$^{tee}$ of Lords and Com'ons for the Ad$^{ty}$ &c., Giles Green, John Lisle.
15th Nov. 1647.
To o$^{r}$ loving friends the Cumtom$^{rs}$ Searchers and other officers of the Port of Gravesend.
The same l're verbatim to the rest of the ports directed as on the other side and signd by
Mr. Fines, Mr. Bond, Mr. Lisle, Mr. Predeux, Mr. Whilocket.

## Nautical Reminiscences.

Cooped up for many years in a floating home, I had stepped on shore from the war, with a buoyancy of spirits akin to joy. The hazy future held not dominion over my mind; the present appeared bright and attractive, and cast its sunshine into the heart. How, indeed, could it be otherwise? The luxury of repose, of the quiet enjoyment of one's own liberty, without the possibility of commanding restraint; the sudden change, how could it have failed to delight? But still amid these pleasing sensations, which like a spell, played around my heart and enhanced the value of the gift, remembrance often drove the thoughts back to the old channels of the past. It was impossible, had I been ever so inclined, to shroud from memory, the thousand incidents with their associations, which had contributed in some way or other to make life agreeable during the trying scenes of warfare; these would rise up, and whisper "recollect you are a sailor, a new field of action is now open before you, support the character".

I had some friends in town, and was introduced into London society for about six weeks. I made up my mind at first, to look only at the bright side of things; but I saw enough in that interval to make me sigh for Old Ocean again!

The impression on my mind, at the era I speak of, of the "Modern Babylon," was anything but agreeable; and therefore, I quitted it without a single regret.

I had left home when a lad to brave the terrors of ocean and of war, after a lapse of years, I returned, and found it, to me, a blank! Of all those so intensely dear, not one remained to greet me.

If there is anything upon which misery exerts its full force, and drags at, and lacerates the heart, it is that final separation upon earth, of souls loving and beloved: but, I must not open that spring of over-flowing sorrow, that chord, which at the least touch vibrates with a melancholy cadence; enough!

On a glorious sunshiny day, glorious in another light to Old England, the first of June, I placed myself on the top of one of those, now almost forgotten, respectable vehicles of transport, ycleped a stage coach, bound to the Principality, to visit some country cousins.

We talk of the revolutions in opinions, manners, dresses, &c., as age succeeds age; but, perhaps there never has been since the change from battering-rams, &c., to gun-powder and cannon, so great and wonderful an innovation as that of the railroad and its train, from the old modes of conveyance. Yet, notwithstanding that such a method of transport most certainly economises time by, as we metaphorically express it, shortening distance, from accelerated speed, we lose much that was agreeable by the exchange, at least, so it has appeared to me, and I believe to a great many more to whom delay was of no moment.

From the White Horse Cellar in Piccadilly, started we, four in, and six out; of the latter, I made one, preferring, as the Gypsies do, the free

atmosphere, and the clear canopy of heaven, to the confined air of a very circumscribed space.

Among the passengers inside, I observed a tall bronzed-faced gentleman, whose dialect told at once that his natal spot lay north of the Tweed. The moment I cast my eyes upon him, I said to myself, "he is a sailor, by Jove, how fortunate!" At Reading there was a vacancy inside; I availed myself of it; and shifted my berth. "Fine day, sir." I said by way of introduction, addressing him. "Very fine indeed, sir, glorious for the harvest," replied he; and then continued his conversation, which my entrance had interrupted, with one of the other passengers. Occasionally he played with his nether lip as he, thoughtfully, cast his eye upon my phiz, if anything, more brown of colour than his own, accompanied with a smile. This, I interpreted to mean, "I think you are a Blue."

Foreigners remark that, England partakes more of fogs, mists, and rains, than of sunshine; and that, that is the reason of the first words of a salute always embracing an allusion to the weather. I imagine that it is rather a practice which custom has handed down from father to son, for generations, than for the reason given above: however, people of all countries rejoice when favoured with fine weather; and it is very natural for those whose clime provides them with an over proportion of bad, to remark on the good, when it comes; but, if we admit it as peculiar to the English, it is, by no means, so absurd as the cacoethes of reiterating, in conversation, the words "you know", which is so very general among them.

During the evening our Caledonian got into confab with another of the passengers, a fine old black coated gentleman, with a great deal of simplicity in his manner of speech, another Dr. Primrose.

I expected, nay, waited impatiently, as each moment passed, to hear something about ships; but what was my astonishment at finding him, who, by ocular inspection I firmly believed to be a son of Neptune, driving a sharp argument with his grave looking *vis a vis*, about the superior mode of preserving hay, that is, housing it, in the North, over the primitive, and as he thought, simple fashion adopted in England, stacking it!

Here was a disappointment! Who but a sailor could have felt it as such? Ridiculous as it may appear, I felt so excited at this defeat of my expectation, that, I had nearly rapped out the burden of the Old Tar's stave, "'Tis time my bonnies, time for us to go", as I bethought me of mounting aloft again, at the next stage: the grass combers! what have I to do with them?"

But, by an unusual effort, I restrained my wonted impetuosity, and held on, still hoping. Why? Why, who likes to acknowledge his judgment wrong? Ah! the rogue, he's sailing under false colours; I'll make him strike presently! I think my naive astonishment must have been apparent to him, as, when our eyes met, I observed an arch smile upon his lips, as if he were secretly enjoying, what, my looks must have told him, if he really was of the cloth, was to me a very great

disappointment. In revenge, as also with the hope of bringing his thoughts back to the "billow and the breeze", I began to hum the old sea song of "Poor Jack"; but, no! he had got into the farm-yard, and there he stuck, yet I fancied, or it was so, his voice and his manner of expression sounded so much like one who had commanded on the ocean that my opinion remained unshaken. "He must be a sailor".

I listened attentively with the full expectation of catching him tripping with a sea phrase, but, no! all his technicals belonged to the land; Dutch clover, mangoldwurzel, oats; O ye Gods! oats! In the midst of my chagrin, I unconsciously sang out loud, "O, Willie brew'd a peck o' maut," and then stopped short, by a fit of laughter from "our Jamie o' the braes." Ah, thought I, "may Boreas never thresh your rigs. I'll cotch 'e yet."

I looked out of the window with a fixed gaze, without noticing a single object, that flitted by; I was in deep settled thought communing with myself: is it possible! is it possible I can be so mistaken, a gentleman-farmer? Tut! hope still stuck to me malgrè appearances, Tut! not he, he's a seaman I'll maintain; confound it how long this stage seems to be!

Well, at length the coach arrived at Oxford; as I stood at the door of the inn, to see my portmantean shifted, I saw our would-be gentleman-farmer, steering towards me. Fearing, now, that the supposed-to-be parson had vanished, that I might be treated with a dissertation on the growth of kail-wort, for which I knew the Scotch were famous, I was about to back in, and escape the infliction, when, my gentleman, perhaps, suspecting as much, held up his finger, a telegraphic signal universally understood. "What rank," quoth he. I laughed out with a right good will, and so did he, as I said "I thought so! I could have sworn you were of the cloth." "Well, you see, too, that I was not mistaken; but, how could *you* hold on after the deceptive yarn on rural economy." "That, indeed, puzzled me exceedingly; but the opinion still held notwithstanding your foggy argument."

We had a pleasant hour's ramble and talk whilst viewing the mansions of learning; not, however, embracing any remarks on the colleges; but entirely of the Service—the glorious Service!

As I reached my journey's end, and the coach was passing over W— bridge very slowly, being "before time," and whilst I was readmiring the beautiful scenery of the river, which I had not set my eyes on for many a year, I saw an old messmate (who it appeared had come down on the same errand as myself,) coming in a direction to meet us. The thoughts which were feeding my admiration of the beautiful landscape before me were gone in an instant! I jumped up, and in the impulse of the moment called out "Ship ahoy!"

> "Man feels as man, the earth is beautiful,
> His blessings sanctify even senseless things,
> And the wide world in cheerful loveliness
> Returns to him its joys."

But here was a joy, a meeting which, more than

"The verdant earth
Like beauty waking from a happy dream"

could to the heart of the sailor give.

The moment he "twigged" me, he took off his hat, waved it, and called out, "Coachee, stop, set him down at once." So, I jumped off. Hands were in an instant locked, and heartily shaken. "How are'e! how are'e!" of course followed. My old friend had a shade of melancholy, which, not even the delight he evidently felt at the moment, could entirely withdraw from his countenance. I had heard of the cause, death had been busy where his heart was. "Come cheer up shipmate, you know how it is with me," I said, "bereft of valued hearts, as well as yourself, let us,

"While we treasure through life their beloved recollection,
Let us cling to the few that we've left."

"Well, well, I shall be more easy now, the sight of you, my boy, has saved me from dying in the midst of the dull gaieties of this very dull inland town, for lack of a little salt-water prattle! Now, my lad, now that I have you, a fig for their soirees, their routs, and their loo-tables, "Richard's himself again."

I here again find myself speaking of that which is the only certain thing pertaining to humanity; but let us pass on to the actual condition of the place; all was peace here, calm, quiet, and the face of nature beautiful, contrast the opposite:—

"O War! thou miscreating curse!
Dark juggler of the Universe!
How hast thou marr'd this glorious globe!
Throwing around thy scarlet robe,
And masking with the rainbow blaze
Of gem-like beauty thy fierce face;
Thou hast deceiv'd from Time's first ages,
Its mighty captains, lords, and sages,
Till they and the strong multitude,
Thy mad remorseless smiles have woo'd;
And drunk with thy bewildering song
From horn, or harp, or cymbalon,
Done deeds, which might the lion shame,
And make the Nations pale to name!*"

*Whiffin's Apostrophe to War.*

If that deplorable exercise of the passions of man, of nation fighting against nation, so briefly and correctly told in the lines quoted, is not a result of civilization, assuredly the science of civilized men has greatly aided in developing the means for rendering it more bloody.

My old messmate did not linger as long as I did in the "dull town"; but whilst he staid we were constantly together. A short time after he departed the races commenced.

There was a great inflowing of company—from the gay aristocrat seeking new pleasures to wile away time, down to the sturdy beggar,

* Our poet (a Quaker) goes however, a little too far when he denounces the defenders of a country as homicides.

intent upon reaping, through the eloquence of his persuasive tongue and tattered condition, the means to support the independence of his propensity for loco-motion! An irregular fair was permitted by the authorities to be held near the winning post; and in the booths appropriated to the "respectable" classes, there was a galaxy of beauty, but the greatest curiosity which attracted my notice was, the (late) old Duke of N——with his eye to the glass of a Puppet show, and which he seemed to enjoy amazingly—as the methodical old proprietor bawld out—"There you sees the king of France upon footy-back, and king George upon horsey-back." And now, you sees the great battle of Traflegar, where Nelson got his death blow, and the French ships were blowed out of water!" &c., &c. Among the showy equipages was that of a *ci-devant* Mid—Sir A. H., *Bart.* But that which threw all others into the shade was Mr. B——'s, a West India gentleman of large fortune: the man of highest rank, the old Duke, sported as a "set-out" a very humble vehicle, an old, bottle green coloured coach, drawn by a pair of black, cart-horse-like animals, with tails reaching nearly to the ground. I was told that his Grace was an "oddity," and despised all show of ostentation.

The inhabitants of the town appeared to me as if one and all had been stung by a tarantula; the excitement was general; the streets were crowded; and every body seemed to be in a hurry!

Invitations came pouring in; one or two for the same evening, yet they were accepted, although wondering how the deuce my fair cousins intended to manage, being at two parties at once. I, nevertheless, followed my leaders in this strange chase after delight, more out of curiosity than from any expectation of deriving pleasure from such flying visits.

One of the most curious parties I attended, was given by the lady of a dignitary. The room was a very long one; in the centre was a sort of elevated rostrum—to all appearance a pulpit—graced by the excellent tempered, learned, and kindly D. D.

When I saw our venerable host mount, adjust himself, and place on his spectacles, an idea crossed my simple mind that it was possible he was about to favour us with a sermon, or at least an exhortation on the desirability of withdrawing our attention from the vanities of human life; or that he elevated himself thus, the better to gaze upon the ostentatious show below and around him, and to moralize on the shadowy things which attract and beguile the heart of man from the more important duties of his station. What a green-horn I was! It is questionable whether our very reverend doctor condescended to bestow even one stray thought upon the gay pageant, or was endeavouring to abstract his mind from it, to fix it upon the affairs of the outer world—"not the latter surely," thought I, as I looked up and caught the mild and serious expression of his placid countenance—"not that surely"—What a green-horn I was! The doubt was settled in an instant, to my extreme surprise, like another Henry Peronett, but without the insufferable pride of that noted major-general and Baronet* our worthy

* Mrs. Hall's Marion.

doctor unfolded the pages of "Campbell's Dissertation on Miracles?" Ha! you are out—The Courier! I now turned my eyes to the company it was a multitude! The scene reminded me of a bazaar; the visitors, for the most part were strolling about, after each party had threaded up to the head of the room, and paid the accustomed devoirs to the lady of the mansion. Some did not remain above ten minutes, or a quarter of an hour; whilst others came dropping in, up to a late hour; and this is called pleasure!

The party I came with separated, each individual seeking out some acquaintance with whom to prattle on subjects which had a bearing on the festivities of the week; at least I judged so from the drift of the conversations immediately around me. I was not, however, left alone, one of our host's daughters, a pretty and agreeable girl, patronized the sailor; she, like myself, preferred a quiet nook to the crowded saloon, and we passed several hours in a lively interchange of thoughts.

I thought the whole ensemble ridiculous enough, and took advantage of my young friend's absence, she having been called to assist in the toil of amusing the company at the upper end of the room, to "bolt," sans ceremonie!

As long as any novelty remained, the hours passed away lightly enough; but, after a few weeks repetition, I began to tire of these parties, which appeared to be "got up" for effect. The dinner parties were less bearable; there, there was nothing to amuse; on the contrary, after the ladies retired, much that was objectionable often, in the tenor of the discourse, as in the intemperate bibbing of the juice of the grape, took place. As I had originally designed therefore, I slipped and made sail higher up towards the foot of Plynlimmon, where another curiosity awaited me, in the shape of a Celtic philosopher!

---

## Something about Indifference and its Evil Consequences.

Indifference, apathy, carelessness, neglect, call it what you will, may be harmless and excusable in the general common-place events of every day life; it involves little or much inconvenience perhaps to the indifferent person, or him whom his indifference concerns. But indifference found in matters which affect the safety of life and property amounts to fault. For the loss of property, the fault of indifference may be atoned for by a penalty of forfeiture either of goods or liberty on the part of the faulty person, but for the loss of life which his culpable indifference has occasioned, how can he atone for that? How can he make up for that which he cannot restore? How culpable then does indifference become in him, and yet how frequent is it. Look where we may, it stares us in the face! How many thousands of instances might be given of this culpable indifference? The captain of the *Orion* the other day was indifferent as to the management of her by the mate, and

went below to his bed; while the mate indifferent about what he was doing with her, ran her on the rock, entailing fearful loss of life.

We were about to illustrate our argument with some cases in point, all tending to the effect of not providing a nail for the horse's shoe, alluded to in the adage, viz. the loss of both horse and rider, when the following came, *apropos* to our purpose, in that sensible and widely circulated journal, the *Daily News:* the cases mentioned answer the purpose we had in view, they are good examples of the indifference of underwriters and commanders, of some of our merchant ships, about charts and sailing directions. The *Daily News* says:—

"In the Indian journals received by last mail there is a good deal of controversial writing relative to the loss of the *Mary Florence* near Cape Gardafui. There is not a little obscurity about the accounts of the wreck that have been published; but one thing is clear enough, that the *Mary Florence* was wretchedly provided with charts and sailing directions.

"Capt. Biden, of the Master Attendant's office at Madras, says, in a letter addressed to the editor of the *Madras Athenæum*—

"Capt. Short had the old edition of Horsburgh, published in 1827, and yet it is well known that a revised and much enlarged edition (the 5th) was published in 1841; and as I am well aware that ships have been sent to the Red Sea since the publication of the chart of Lieut. Careless without that invaluable guide, and feeling sure that so correct and well defined a chart would have saved the *Mary Florence* from wreck, and some of her crew from captivity, I venture to say that Capt. Short was not furnished therewith, nor do I think he was supplied with an excellent chart of Socotra, by Lieuts. Hawes and Wellsted, published in 1833."

"Capt. Biden adds:

"I think much of the misfortune which befel him (Capt. Short) was owing to the inaccuracy of his chart, and the want of that correct guidance which the minute survey of Lieut. Careless would have afforded; and if insurance companies and shipowners would only reflect upon the trifling cost of accurate charts, and bear in mind that they may frequently be the means of saving ships, lives, and property, they could not be indifferent in so essential a part of the duty which they owe to the public at large. Those two sheets of Lieut. Careless's survey cost in London five shillings, and I verily believe that the *Mary Florence* would have escaped had her commander been provided with them; but as for bad and inaccurate charts they are worse than none at all.

"The captain of the *Mary Florence*, with his 1827 edition of Horsburgh, is a true type of too many of our commanders of merchant vessels. They, or their owners, if they have once got a set of charts or sailing directions, will continue to make a shift with them long after their inaccuracy has been discovered and corrected in later editions. The saving is really a 'penny wise and pound foolish' one.* They cannot but know that the numerous

* One case is sufficient to illustrate this, and that of not very long standing. It is well known that Flinders, when he surveyed Bass Straits, left a group of shoals unexamined; and yet, subsequent to the publication of Capt. Stokes' survey of that Strait, in which they were defined, a ship was caught in a gale, with these shoals under her lee, and her captain dare not run through them, because his chart gave him no other information than shewing them to be unexamined—whereas, there were safe channels which were quite available to him. His indifference about proper charts risked the loss of his ship, with all on board, and occasioned his unfortunate passengers many a long hour of intense anxiety, suffering and privation, in a stormy sea of darkness.—Ed. N.M.

recent surveys, executed in all parts of the ocean under the auspices of the English, American, French, and other governments, have revealed an infinity of errors in our old charts; and yet, provided they can say they have charts on board, they seem utterly indifferent to what the character of these charts may be. To save a few shillings they will bungle on with charts of last century; or they will put up with unauthenticated charts, the compilation of a class of map-makers, who manufacture them more for sale than use.

"The cost of these essential requisites to secure navigation is so low as to render this system utterly indefensible. The Hydrographer's Office of our own Admiralty have of late years published an immense number of admirable charts and sailing directions, which are to be had for a price little more than nominal. In these are introduced the corrections made by the most recent surveys of Spanish, French, or American navigators, wherever the ground has not been gone over by our own surveying service. The Court of Directors of the East India Company have ordered the able marine surveys executed by officers of their navy, to be disposed of at prime cost. Yet cases of neglect to procure the latest and most authentic charts, quite as gross as the captain of the *Mary Florence* continuing to use an addition of Horsburgh twenty-three years old, instead of the improved edition published not ten years ago, are of daily occurrence.

"This is not altogether the consequence of an ignorant and false economy. It not unfrequently proceeds from a vulgar pride, an affectation of despising scientific assistance, which your "practical" seaman is fond of indulging in. We find this feeling displaying itself in many ways, and in none more frequently than in a triumphant proclamation of any error that may have crept into an official chart. With men of this stamp the fact that errors may may creep into the best charts is deemed a sufficient excuse for dispensing with their use altogether.

"To some feeling of this kind we are disposed to attribute the great pains that have been taken in some quarters to give publicity to a notice published by the clerk of works at Melbourne, of an error in one of the editions of the Admiralty chart of Port Philip. The notice in question intimates that 'the first edition of the chart of Port Phillip, published by Capt. Stokes, contains a serious misprint.' The misprint is certainly a serious one, being the substitution of N.N.E. for N.E. by N. in the bearing for vessels entering the Port Phillip heads. But on inquiry, we learn that the misprint was in the old chart; that it was corrected in 1841, and every exertion made to call in the erroneous copies; and that Capt. Stokes's chart, not published till 1842, has the true bearing. Had the owners or master of the vessel who complain of the mistake, taken care to provide themselves with the most recent and best charts, they would not, at this time of day, have been making a shift with a chart that has been nearly ten years out of print.

"There is another remark bearing on this chart that is worthy the consideration of those who take an unaccountable pleasure in representing any one chart as good as another. It is not sufficient that charts be improved as much as possible; it is also requisite that those who employ them bring a certain amount of information and judgment to the task. A true seaman will always make allowance for possible defects even in the best instruments and charts; he will not deem it a sufficient apology for getting into a scrape that he found such or such a representation on his chart. In the impression of the Port Phillip chart which contains the error alluded to, the mistake is only in the lettering; the line which indicates the bearing is drawn with perfect accuracy. A duly cautious and vigilant mariner could scarcely have failed

to detect the discrepancy between the direction of the line and the letters that accompanied it, and would have been thereby put upon his guard.

"All that we are entitled to expect from official surveyors and chart compilers is, that they shall allow no opportunity to escape them of amending any defects in existing charts, and giving publicity to the amendment. This has been of late years most indefatigably practised by the hydrographer's department. There is absolutely no extenuation for the supine indifference with which so many owners of merchantmen persist in neglecting the opportunities they enjoy of providing themselves with the most recent and improved charts."

Thus then it seems to be the opinion of Capt. Biden, that the *Mary Florence* was lost, from having old charts and directions. The case suggests the following query: If Horsburgh of 1827 was used in the *Mary Florence*, in 1850, what was the date of her *Nautical Almanac*, *if* she had one on board? Here was indifference, or apathy, or what you like—but the *Mary Florence* was lost! Verily, our Marine Boards should see to these matters. In conclusion, we must add the following further, but painful illustrations, of the effects of indifference:

"The late Captain M'Neil of Colonsay, who with his wife and two daughters were among the unfortunate suffers of the *Orion*, lately caused a handsome mausoleum to be erected upon a prominent rock in the island of Gigha, of which he was the proprietor. He wished it to be of sufficient size to entomb six; but it was reported by the contractor, that, owing to the necessarily limited site, it could contain no more than four; and his suggestion was accordingly adopted. The structure had been newly completed when the loss of the *Orion* occurred; and in that receptacle of the dead are deposited the remains of the gallant captain and the three members of his hapless family who perished with him.

"He was seen by several of the survivors of the wreck clinging to a floating spar, guiding to safety, by his voice and exertions, the shrieking throng who struggled with the waters around him. His strength failing him, he was heard to cry,—"For God's sake save yourselves, I have done all I can;" and before the boats which put off from the shore had reached the wreck the captain was beyond the reach of succour.

Again, "an aged couple in Liverpool had two sons settled in Australia, who, after repeated solicitations prevailed on them, though it was late in their day of life to transfer themselves and their four daughters to a home in the Antipodes. But their four daughters were in business which must be relinquished, and their little property converted into cash, or marketable commodities for export before the important change could be made. This was done, and about £800 in cash and a larger amount in available goods was prepared for the voyage. Affairs being arranged the whole party of six took their leave of their friends in Liverpool, on the last Saturday of their sojourn. They were to embark for Australia on board a vessel in the Clyde, to reach which they embarked in the *Orion*. In a few hours five of the six had met an unexpected death, and the whole of their valuables were lost, leaving the aged gentleman (about seventy-one years of age) bereaved of wife, daughters, and property, all in one fell sweep."

Such alas, are the manifold effects of indifference. The author of them is suffering the loss of his liberty—but what is that to the bereaved and aged parent?

## Duties of the Surgeon of an Emigrant Ship.

The very responsible duties of the Surgeon of an Emigrant ship require that, that class of officer should not only be as well informed as the Surgeons of the Royal Navy, but also that they should have a commensusurate share of sound discretion and honourable feelings as gentlemen. The following brief statement of them as given in the *Daily News* points out not only their numerous and important duties, but also shows how ill they are compensated. We shall be glad if the recital of them will tend to improve their position.

The surgeon superintendent of an emigrant ship, if he do his duty, has no sinecure of it. He is not only the medical adviser and director of the sanitary police of his vessel; he is at the same time the religious and secular instructor of the emigrants, their civil magistrate, the judge in all quarrels and contentions, that arise between them during the voyage, and the arbiter between them and the officers of the ship.

A surgeon ambitious of being employed in the government emigration service must exhibit his diploma, state what service he has seen, and moreover, undergo an examination by the medical examiner of the Emigration Board. He must also produce certificates of good moral character, from some respectable individual known to the Board personally or by reputation, who has known him for a lengthened period. If his credentials are satisfactory he is put on the list of expectants, and told that he may not perhaps get a ship before two or even more months, but that he must hold himself at all times in readiness to join at a moment's notice. His duties after he has joined, will be most clearly made apparent by stating what is expected of him on joining the ship, at the time of the people's embarkation, during the voyage, and after the voyage is over.

On joining the ship, the surgeon superintendent has to see that the requisite medicines have been supplied, to arrange them securely and in proper order, and to provide himself with proper surgical and midwifery instruments. He has next to inspect the medical comforts, and the various articles for the use of the emigrants; to inspect the cooking apparatus, and see that it is complete; to inspect all the berths, and see that they are duly numbered, and that the beds are rolled up, and lashed with the bedding inside of them. Lastly he has to inquire whether any books have been put on board for the use of the emigrants. The surgeon superintendent has to report upon all deficiences under any of these heads, and take care that they are remedied.

According to the regulations of the Board of Emigration, the passengers ought to have slept at least two nights on board before the ship finally puts to sea. From the moment that the first emigrant sets foot on deck, till the moment of final sailing, the surgeon superintendent has a world of business on his hands. He has to see that the swing-stoves are used before the emigrants come on board, and that their sleeping places and bedding are dry and wholesome. He has to see that their luggage is so put away in the hold, that it may be accessible at least every three or four weeks. He has to muster the emigrants, ascertain their state of health, and prevent any person with an infectious disorder from proceeding on the voyage. He has to take care that the emigrants are maintained on fresh meat, soft bread, and vegetables, while in port. He has to appoint a cook's assistant when there are more than 150 emigrants on board; to nominate a constable for every fifty

emigrants; and to appoint a head man to each mess: these persons are to act as his staff during the voyage. In addition to these duties, he must, if called upon, have the berths numbered, see that the people are berthed according to their natural connexions, and make out lists of the berths and their occupants; he must have lists of the messes made out, see that each mess numbers not fewer than six, or more than ten statute adults, and provide each mess with a card containing the names of the members, and noting the rations to which they are entitled; he must take care that the occupants of contiguous berths are in the same mess; and he must superintend the serving out of the mess utensils to each mess.

During the voyage the surgeon superintendent is expected to muster and inspect the emigrants, and inspect their berths daily; he has to visit the sick twice a-day, and take charge of the hospital; he has to enforce cleanliness among the emigrants and proper ventilation of the ship. He has moreover to establish a school, and appoint a teacher; to distribute the books among the emigrants, see that they are duly returned and in good condition; and if there is no clergyman on board, he has to read prayers on Sundays. It is his duty to promote music and dancing, and every harmless means of combining exercise with amusement. He has to protect the emigrants from ill-usage on the part of the captain and crew, and to enforce their obedience to all regulations required for the discipline and navigation of the vessel. He acts as arbiter or judge in all quarrels. He has to keep a regular medical diary, and also a diary of all occurrences on the voyage. Perhaps the most difficult part of his functions is to puzzle out the meaning of the Board's instructions; he has "to make himself acquainted with the whole, and to apply to any defective or doubtful point in one part of the instructions, whatever light can be derived from another." Nay, more: "he is not precluded from any modification of their details, which his own experience may suggest as preferable in itself, or better suited to the people under his charge."

When the ship reaches its destination, the surgeon superintendent must remain with the emigrants as long as they are allowed to remain on board; he must report on the characters and qualifications of the emigrants; he must make out lists of those who are landed, the masters with whom they have engaged, the periods of their engagements, and the rates of wages, rations, &c., they have stipulated for. He must decide whether his staff are entitled to gratuities, and whether the conduct of the captain and his officers, has been such as to entitle them to theirs. He must deliver up his journals at the colonial secretary's office, with lists of the emigrants embarked and landed, and notes of all casualties on the voyage.

For the proper discharge of these duties, mere professional skill, and average health of body and discreetness of judgment, are not sufficient. The surgeon superintendent of an emigrant ship occupies a position in which unusual good temper, firmness, judgment, and tact are required. He has to deal with some hundreds of individuals of the least educated classes, brought, it may be, from all quarters of the Island, to meet for the first time on board; he has to keep them in good humour as well as in good health throughout the voyage; to prevent quarrelling and lax or immoral conduct among them; to obtain from them a willing obedience to a minute and stringent system of discipline. Again, he has to keep in good humour some twenty seamen and the captain and his officers, all of whom are disposed to look with jealousy on his authority, and to question it if possible, in the strict line of duty. He has to find fault, to enforce regulations on the reluctant, to be regarded as the man who is to tell government of all their misdeeds. Independently of

the incessant activity required at his hands, the mere invidiousness of his position is enough to fret many men to death. The importance of a judicious and successful discharge of his functions to the emigrants, and to the colony of which they are to become denizens, is incalculable; the wear and tear of mind and body it must cost him, immense.

Now, let us turn to inquire what is the remuneration he earns by all his fret and worry of a four months' voyage; by his two or three months of momentary expectation to be called to active service; and by his month or two of kicking his heels in the government offices in the colony. Originally his utmost remuneration was a gratuity of ten shillings per head, on every emigrant landed, contingent on his giving perfect satisfaction. He has also a free cabin passage out, and is dieted at the captain's table, but in return for this he is expected to give the crew the benefit of his medical assistance if required. Of late an addition has been made to the gratuity, in the case of a surgeon who has made several voyages to the satisfaction of the Board: twelve shillings per head is allowed in the third and fourth voyages, fourteen shillings in the fifth and sixth; sixteen shillings in the seventh and all subsequent voyages.

A regularly educated surgeon, possessed of the high qualities requisite for the proper discharge of the superintendent's duties, who has had, say 243 emigrants under his charge, receives £121. 10s. He has to pay his own expenses from the time of his appointment till he joins his ship; he has to pay his own expenses in the colony from the time he leaves it; he has to pay for his passage home. Four months out and four months home, with the waiting before and after, make at least a year; and after this harassing and exhausting year is closed, he finds himself with, it may be, £30, in his pocket!

This is niggardly remuneration. It evinces a disregard of the natural and acquired qualifications required in a surgeon superintendent, and the value of his services.

The surgeons superintendent are paid out of the colonial funds for emigration, if the whole proceeds of the land sales and rents were applied to emigration purposes, the surgeons superintendent might be adequately remunerated. Only contrast their miserable allowance with what is given to navy surgeons in charge of convict vessels. No sooner does an assistant surgeon of the Royal Navy, take charge of a convict ship bound to Australia, than he is placed on full pay for eight months. He receives ten shillings per head for every convict landed; he has £100 allowed for his return voyage, and about £20 for his expenses while in port. Yet the duties of the surgeon in charge of emigrants, are infinitely more difficult and delicate, and his services far more important.

Justice to a deserving class of men, justice to emigrants and the colonies, requires that this should be amended. There are among our surgeons superintendent of emigrant ships, men of the highest character and ability; but unless they are more fairly remunerated, they will drop off one by one, leaving only the refuse of the profession available for the emigration service.

---

LOUISBURG HARBOUR, CAPE BRETON.—*The European and North American Railway.*

AN appointed meeting of delegates from the Northern States of the Union,

and from Nova Scotia, New Brunswick, and Lower Canada, assembled on the 31st of July last, and succeeding days, in Portland City, state of Maine; when it was—

Resolved—That the spirit of the age and the progress of modern improvement demanded the most certain means of intercommunication between the people of the Old World and those of the New.

Resolved—That this object can be best effected by the construction of a line of railway, leading from the great seats of population and business in the United States and Canada, through Maine and the province of New Brunswick, to some convenient part in the Atlantic coast of Nova Scotia.

Resolved—As the firm and deliberate opinion of this Convention, that the time has arrived when the construction of such a line of railway shall be commenced, and that it shall be designated the "European and North American Railway."

Resolved—That this great railway, connected as it will be with ocean steam navigation, and the railway systems of the *whole* of Europe and America, which traverse empires, kingdoms, colonies and states, for the advantages of all, deserves to be regarded, not by the commercial world alone, but by the statesman, the lawgiver, and the philanthropist, as one of the greatest links in that mighty chain which is fast encircling the whole earth, strengthening the bonds of brotherhood and Christian fellowship, multiplying the ties of lineage, and bidding fair to constitute of all mankind but one great commonwealth of nations.

From the foregoing, it will readily be conceived that this great undertaking now occupies the deep and unanimous feeling of the public mind in North America, which will doubtless be warmly responded to in Europe, and Great Britain especially.

The following inquiry naturally arises from these resolutions, viz.—"What part of the eastern seaboard of Nova Scotia ought to be the carefully selected terminus and long wharf of this continent?" Now, the once renowned harbour of Louisburg suggests itself as the locality; it being situated in the important island of Cape Breton—the most eastern land and harbour of Nova Scotia, and, consequently, the nearest by many leagues to the Continent of Europe.

The ocean light on Scaterie beckons the steamer to a correct land-fall, from whence, running a few leagues south-west along the coast, the efficient harbour light on the eastern promontory of Louisburg points out the safe, but narrow entrance, to be approached with perfect confidence, ease, and speed, where, *in one quarter of an hour* from, perhaps, a boiling, tempestuous ocean, the steamer can ride land-locked, tranquil, and secure.

Wolfe's Battery is a singularly appropriate natural platform which the renowned General Wolfe happily discovered during the siege, and from whence he enfilated the grand battery of 36 guns, commanding *a fleur d'eau*, the entrance of the harbour. Directly below this eminence, lining the shore, are the ruins of this fort and its two remaining towers, the eastern and western. The harbour entrance is about 400 yards wide, and has a deep unobstructed channel, limited to this breadth by the three islands on the right, the two largest of which were once famed for their powerful batteries. Then comes the main land point, the limit of the view, beyond which is a very extended flat, where, a hundred years ago, next to the sea, stood the French city of Louisburg, surrounded by its celebrated fortifications. Of these, it may be said they are quite demolished; although traces sufficient remain, with various ramparts, to indicate their once great extent and

strength, and the army it must have required to efficiently man the extended lines and numerous batteries.

In conclusion, it may be remarked, as indicative of the capacity and security of this harbour, as also the fertility of these waters, when the French, when they possessed it, annually sailed out of Louisburg six hundred decked vessels (bankers) for the fishery.

E. S.

Another correspondent says:—From careful and repeated calculations, based upon the present traffic and travel on the common highway between St. John's and Halifax, it has been proved that the work will pay eight per cent. per annum on the outlay, enormous as it will necessarily be. But the experience of other countries shows that the effect of a railway is to double and treble the traffic and travel. Besides, we count upon a large proportion of the passengers now going by the Cunard line of steamers. We expect that a line will be established between Galway and Halifax, to cross the Atlantic in six days; and, if so, of course at such reduced rates of passage as will defy competition.

---

METALLIC PLUGS FOR BOATS.—*From the United Service Gazette.*

*Devonport, 7th Oct.*, 1850.

SIR,—The late steam-vessel disasters, in which a frightful loss of life occurred by the plugs for the boats having been lost, has naturally drawn attention to the means of avoiding similar casualties; and a very ingenious contrivance, which I have just had an opportunity of examining, devised some time ago by Lieut. Stevens, of the *St. George*, guard-ship, of this port, has been fitted in so many cases, and with so much success, that I believe you will consider it ought to be made more generally known, and that its merits cannot fail to ensure its extended application. The metallic plug or little apparatus, consists of two brass plates three inches in diameter, and of about one-eighth of an inch in thickness, with an intervening disc of leather, one of which brass plates is secured by four brass screw nails on the inside of the bottom of the boat; and the other plate, by being screwed like a nut on a stud projecting upwards from the centre of the under plate, can be forced down by a simple twist of the finger and thumb upon the disc of leather, and fit again upon the stationary plate so close, as completely to seal and prevent the passage of water betwixt the plates. Each of the brass plates has two holes through it three-fourths of an inch in diameter; and by placing the two plates so that the holes of the upper one are over those of the under one, a free passage for the water exists; but by twisting the upper plate round so as to be close upon the under one, the holes are no longer over each other, and the bottom of the boat is rendered completely tight.

This simple contrivance, which can be fitted at a cost of half-a-crown, has already been applied with complete success to the boats of the following ships:—*Phaeton*, 50, *Inconstant*, 36, *Hydra*, steam-vessel, *Agincourt* and *St. George*, guard ships, *Albion*, 92, *Portland*, 50, *Thetis*, 36, &c.

AN ENGINEER.

[Above four years ago, so far back indeed as the spring of 1846, a wooden model of this plug (or rather substitute for one), was forwarded to the Editor of this Journal by Mr. Lucius C. Bailey, R N., as his invention, and remained unnoticed from requiring an illustrative wood cut. The model is still in our possession, and the invention if it has any merit, we consider to belong to

Mr. Bailey. It is nothing more than a happy adaptation to the purpose of a boat's plug, of two perforated concentric metallic discs, (with *one* aperture only) the upper one closing their apertures by merely being turned on the other, and thereby excluding communication between the external surfaces. Arnott's stove exemplifies it. But the idea of using it as a boat plug is good; it cannot fail to answer the purpose, and has the great virtue of being always in its place, which is not always the case, as in the recent instance of the *Superb* at Jersey and many others.—*Ed. N.M.*]

---

## Naval Forces at Home.

[*From the United Service Gazette.*]

### Portsmouth.

*Commander-in-Chief*—Admiral the Hon. Sir Thomas Bladen Capel, K.C.B.

*Commander of Ordinary*—Rear Admiral Superintendent Prescott, C.B.—*Superintendent of College*—Capt Chads, C.B.—*Superintendent of Packets, Southampton*—Capt. A. L. Corry.

| Ships. | Gns | Men | Captains. | Service, &c. |
|---|---|---|---|---|
| Victory (104) | 22 | 224 | Capt. F. P. Blackwood... | Stationary flag ship. |
| Britannia (120) | 10 | 420 | Capt. R. A. Yates | Depot flag ship. |
| Excellent | 46 | 690 | Capt. H. D. Chads, C.B... | Gunnery ship. |
| Vengeance | 84 | 330 | Capt. Sir H. Blackwood. | Ready in harbour. |
| Seaflower | 6 | 28 | Lieut. Fletcher | Tender to Cuckoo. |
| Rolla | 6 | 150 | Lieut. W. H. Fenwick... | Apprentices' tender |
| Fanny | 4 | 19 | Master J. Scarlett (a) ... | Tender to flag ship. |
| *Steamers.* | *h.p.* | | | |
| Vic. & Albert... | 430 | 2 | 118 Capt. Ld. A. Fitzclarence | Royal yacht. |
| Blenheim (sc) ... | 450 | 60 | 260 Capt. Henderson, C.B. ... | Harbour. |
| La Hogue (sc)... | 450 | 60 | 500 Capt. Macdougall ..... ... | Harbour, refitting. |
| Retribution | 400 | 28 | 300 Capt. Warden | Harbour, refitting. |
| Cuckoo | 100 | 2 | 34 Com. Lefebre | Channel Islands. |
| Hecate | 240 | 6 | 135 Com. W. S. Hand | General service. |
| Fairy (sc) | 128 | | Master Welch | Royal yacht tender. |
| Elfin | 40 | | Master A. Balliston (a)... | Royal ycht. dispatch tdr. |
| Sprightly | 100 | | 29 Master J. Allen (a) | Tender to flag ship. |
| Echo | 140 | | Master Hardman(a) | Tug tender. |

### Devonport.

*Commander-in-Chief*—Admiral Sir W. Hall Gage, G.C.H.

*Commander of Ordinary*—Commodore Lord John Hay, C.B.

| | | | | |
|---|---|---|---|---|
| Cambrian | 40 | 350 | Commodore Plumridge.. | To be paid off. |
| Bellerophon | 78 | 303 | Capt. Lord F. Paulet ... | Refitting. |
| Impregnable | 78 | 207 | Capt. Sir T. Maitland ... | Stationary flag ship. |
| St. George (120) | 10 | 475 | Capt. Nias, C.B. | Depot of Ordinary (flag). |
| Albion | 90 | 820 | Capt. Hope Johnstone... | In the Sound. |
| Harlequin | 12 | 125 | Com. A. Wilmot | Fitting. |
| Nautilus | 6 | 150 | Lieut. Dolling | Apprentices' tender. |
| Tyne | 4 | 46 | Master P. Wellington ... | Store ship for Rio. |
| Sylph | 4 | 20 | | Tender to flag ship. |
| *Steamers.* | *h.p.* | | | |
| Wasp (sc) | 100 | 12 | 160 Com. Crozier | To sail for C. of Africa. |
| Confiance | 100 | 1 | 20 Master Martin (a) | Tender to flag ship. |
| Avon | 160 | 1 | 20 2nd Master A. Veitch ... | Tender to flag ship. |

FALMOUTH AND BRAZIL PACKETS.

| | | | | | |
|---|---|---|---|---|---|
| Crane | | 6 | 44 | Lieut. J. Parsons | Left Falmo. for Rio, Sep. 6 |
| Express | | 6 | 44 | Lieut. W. Lory | Left Falmo. for Rio, Au. 6. |
| Linnet | | 6 | 44 | Lieut. T. James | Left Falmo. for Rio, Oct. 6 |
| Penguin | | 6 | 44 | Lieut. W. Leslie | Devonport to be paid off. |
| Peterel | | 6 | 44 | Lieut. T. Cresar | Left Falmo. for Rio, Nov. 6 |
| Seagull | | 6 | 44 | Lieut. J. Small | Falmouth. |
| Astrea | | 5 | | Master Yeames | Store ship, Falmouth. |

SHEERNESS.

*Commander-in-Chief*—Vice Admiral the Hon. G. Elliot, C.B.

*Superintendent of Packets at Dover*—Commander Baldock.

| | | | | | |
|---|---|---|---|---|---|
| Ocean (80) | | 46 | 160 | Capt. Greville | Stationary flag ship. |
| Wellington | | 84 | 275 | Capt. M. Seymour | Depot ship of Ordinary. |
| Trafalgar | | 120 | 372 | Capt. M. Stopford | Ready. |
| Hart | | | | | Tender to flag ship. |
| *Steamers.* | *h.p.* | | | | |
| Dasher | 100 | 2 | 35 | Lieut. Parks | Scotch fisheries. |
| Garland | 17 | 1 | 128 | Lieut. E. Wylde | Dover. |
| Vivid | 17 | 1 | 128 | Master L. Smithett (a) | Do. |
| Violet | 17 | 1 | 128 | Master R. Sherlock (a) | Do. |
| Undine | 17 | 1 | 106 | Master Warman (a) | Do. |
| Princess Alice | 15 | 1 | 120 | 2nd Master Rutter | Refitting at Woolwich. |
| Myrtle | 50 | | 25 | Master S. Braddon (a) | Tender to flag ship. |
| Wildfire | 75 | 2 | 23 | 2nd Master Brockman | Tender to flag ship. |
| African | 90 | | | 2nd Master Gill | Tug tender. |

CHATHAM.

*Commander of Ordinary*—Capt.-Superintendent Peter Richards, C.B.

| | | | | | |
|---|---|---|---|---|---|
| Cumberland | | 70 | 290 | Capt. Richards, C.B. | Depot ship of Ordinary. |
| Spy | | 3 | 65 | Lieut. G. Western | Ascension, Sept. 22. |
| *Steamer.* | *h.p.* | | | | |
| Advice (s) | 80 | 1 | 12 | | For harbour service. |

WOOLWICH.

*Commodore*—Henry Eden, Superintendent of Dockyard, and Commander of Ordinary.

| | | | | | |
|---|---|---|---|---|---|
| Fisgard | | 26 | 106 | Commodore Eden | Flag ship. |
| Crocodile | | | 26 | Lieut. Greet | Receiving ship, Tower. |
| *Steamers.* | *h.p.* | | | | |
| Pluto | 100 | 3 | 55 | Lieut. W. K. Loliffe | |
| Lightning | 100 | 2 | 28 | Master J. E. Petley | To be paid off. |
| Black Eagle | 260 | | 38 | Master S. B. Cook | Admiralty yacht. |
| Monkey | 80 | 2 | | 2nd Master (a) | Tender to Fisgard. |
| Pigmy | 80 | | 16 | | Tender at Deptford. |

COAST OF IRELAND.

*Commander-in-Chief*—Rear Admiral Manley Hall Dixon.

| | | | | | |
|---|---|---|---|---|---|
| Wizard | | 4 | 100 | Lieut. Barnard | Apprentices' tender. |
| Gipsey | | 1 | 11 | 2nd Master J. North | Tender to flag ship. |
| *Steamers.* | *h.p.* | | | | |
| Ajax (sc) | 400 | 58 | 250 | Capt. M'Quin | Flag ship, Queenstown. |
| Trident | 350 | 2 | 65 | Lieut. Risk | Queenstown. |
| Shearwater | 160 | 2 | 50 | Lieut. E. E. Turnour | Galway. |
| Lucifer | 180 | 2 | 55 | Lieut. Jackson | Queenstown. |

PEMBROKE.

*Captain Superintendent*—Sir T. S. Pasley, Bart.—*Superintendent of Packets at Holyhead*—Com. Charles Fraser. *For Liverpool*—Com. Bevis.

| | | | | | |
|---|---|---|---|---|---|
| Saturn | | 10 | 32 | Capt. Sir T. Pasley | Guard and depot ship. |
| *Steamer.* | *h.p.* | | | | |
| Prospero (s) | 144 | 2 | 16 | | Tender, Holyhead. |

## FORCES ON FOREIGN STATIONS.

MEDITERRANIAN.

*Commander-in-Chief.*—Vice Admiral Sir William Parker, Bart, G.C.B.

*Second in Command and Superintendent of Dockyard.*—Rear Admiral Harvey.

| Ships. | | Gns | Men | Commanders. | Service, &c. |
|---|---|---|---|---|---|
| Superb | | 80 | 750 | Capt. Purcell | Port Mahon. |
| Caledonia | | 120 | 1000 | Capt. Carter | Do. |
| Powerful | | 84 | 750 | Capt. R. S. Dundas | Do. |
| Ganges | | 84 | 750 | Capt. Smith, C.B. | Do. |
| Queen | | 116 | 970 | Capt. C. Wise | Do. |
| Racer | | 12 | 125 | Com. Beddoes | Argostoli. |
| Frolic | | 16 | 130 | Com. Vansittart | Corfu. |
| Ceylon (42) | | | 42 | Lieut. H. Harvey | Depot ship, Malta (flag) |
| *Steamers.* | *h.p.* | | | | |
| Firebrand | 410 | 6 | 200 | Capt. Knox | With the Fleet. |
| Terrible | 400 | 21 | 300 | Capt. Hope, C.B. | Do. |
| Dragon | 560 | 6 | 200 | Capt. H. W. Giffard | En route to Malta. |
| Growler | 280 | 6 | 160 | Com. Stoddart | Alexandria |
| Scourge | 420 | 6 | 160 | Com. Lord F. Kerr | Malta. |
| Spiteful | 280 | 6 | 160 | Com. Carmichael | Naples. |
| Antelope | 260 | 3 | 65 | Lieut. F. Smyth | Constantinople. |
| Triton | 260 | 3 | 65 | Lieut. C. J. Glinn | Packet Service. |
| Oberon | 260 | 3 | 65 | Lieut. Gardiner | Do. |
| Janus | 200 | 4 | 55 | Lieut. R. A. Powell | Gibraltar. |
| Medina | 312 | 4 | 65 | Lieut. A. Darby | Packet Service. |
| Spitfire | 312 | 4 | 65 | Lieut. J. O. Bathurst | Piræus. |
| Merlin | 312 | 4 | 65 | Lieut. J. H. Turner | Packet Service. |

WEST INDIES, HALIFAX, AND NORTH AMERICA.

*Commander-in-Chief.*—Vice Admiral the Earl Dundonald, G.C.B.

*Second-in-Command.*—Commodore Bennett.

| | | | | | |
|---|---|---|---|---|---|
| Wellesley | | 72 | 600 | Capt. Goldsmith | Halifax. |
| Imaum (72) | | 10 | 111 | Commodore Bennett | Port Royal. |
| Indefatigable | | 50 | 500 | Capt. Smart, K.H. | Greytown. |
| Alarm | | 26 | 230 | Capt. G. Ramsey | Barbados. |
| Sappho | | 12 | 125 | Com. Hon. A. Cochrane | Pictou. |
| Helena | | 16 | 130 | Com. De Courcy | Newfoundland. |
| Persian | | 12 | 125 | Com. A. G. Bulman | Musquito. |
| Bermuda | | 3 | 44 | Lieut. A. D. Jolly | Carthagena. |
| Netley | | | | | Tender, Halifax. |
| Pyramus | | | | | Halifax, receiving ship. |
| *Steamers.* | *h.p.* | | | | |
| Inflexible | 375 | 6 | 160 | Com. Dyke | Lt. P. Royal for Mexico. |
| Plumper (sc) | 60 | 12 | 100 | Com. Nolloth | St. John's. |
| Alban | 200 | 2 | 30 | Lieut. Crauford | Tender for Port Royal. |
| Mohawk | 60 | 1 | 21 | Lieut. F. C. Herbert | Lake Huron. |

### East Indies, China, and New Zealand.

*Second-in-Command.*—Commodore Lambert, En route to India.

| | | | | | |
|---|---|---|---|---|---|
| Hastings | | 72 | 600 | Capt. C. J. Austin | Penang. |
| Fox | | 42 | 310 | Capt. Lambert | Left Plymouth Sept. 24. |
| Amazon | | 26 | 240 | Capt. Troubridge | Hong Kong. |
| Cleopatra | | 26 | 230 | Capt. H. L. Massie | Red Sea. |
| Pilot | | 12 | 120 | Com. Ince | Shanghai. |
| Serpent | | 12 | 125 | Com. Barker | Hong Kong. |
| Arab | | 12 | 130 | Com. W. Morris | Amoy, ordered home. |
| Contest | | 12 | 125 | Com. Hon. J. Spencer | Left Penang for Labuan. |
| Lily | | 12 | 125 | Com. E. A. Bedford | Left Cape for H. Kong. |
| Minden | | | 26 | Master Mitchell | Store ship, Hong Kong. |
| Alligator | | | | Dr. Bankier | Hospital ship, H. Kong. |
| *Steamers.* | *h.p.* | | | | |
| Fury | 515 | 6 | 160 | Capt. Willcox | Lt Singapore Aug. 11th. |
| Sphynx | 500 | 6 | 160 | Com. Shadwell | Siam. |
| Reynard (sc) | 60 | 9 | 100 | Com. Cracroft | H. Kong for Whampoa. |
| Salamander | 220 | 6 | 135 | Com. Ellman | Left Devonport, Aug. 22. |

### New Zealand Division.

| | | | | | |
|---|---|---|---|---|---|
| Havana | | 19 | 240 | Capt. J. E. Erskine | Sydney. |
| Fly | | 14 | 130 | Com. R. Oliver | Auckland. |

### Hon. Company's Steamers in China and India Seas.

| | | | | | |
|---|---|---|---|---|---|
| Semiramis | | 4 | 130 | Com. C. M. Daniell | Cochin China. |
| Phlegethon | | 4 | 130 | Mr. G. T. Niblett | Canton. |
| Nemesis | | 4 | 130 | Mr. T. Wallage | Borneo. |

### Pacific.

*Commander-in-Chief.*—Rear Admiral P. Hornby, C.B.

| | | | | | |
|---|---|---|---|---|---|
| Asia | | 84 | 750 | Capt, R. F. Stopford. | Flag ship on a cruize. |
| Inconstant | | 36 | 330 | Capt. J. Shepherd | Left Valparaiso Sept 2. |
| Mæander | | 42 | 360 | Capt. Hon. H. Keppel | Valparaiso. |
| Daphne | | 18 | 187 | Capt. E. G. Fanshawe | Left Valparaiso for Mex. |
| Dædalus | | 20 | 230 | Capt. G. G. Wellesley | California. |
| Champion | | 14 | 130 | Com. Hayes | Valparaiso. |
| Swift | | 6 | 66 | Com. Aldham | Honolulu. |
| Cockatrice | | 4 | 20 | Master J. Rundle | Ten. to Asia, Honolulu. |
| Naiad | | 6 | 46 | Master W. L. Brown | Callao, store ship. |
| Nereus | | 3 | 24 | Master F. Bateman | Valparaiso, store ship. |
| *Steamers.* | *h.p.* | | | | |
| Gorgon | 320 | 6 | 160 | Com. Paynter | Guayaquil. |
| Driver | 280 | 5 | 160 | Com. G. R. Johnson | Valparaiso. |

### South-East Coast of America.

*Commander-in-Chief.*—Rear Admiral Reynolds, C.B.

| | | | | | |
|---|---|---|---|---|---|
| Southampton | | 50 | 450 | Capt. N. Cory | Flag ship, Rio. |
| Thetis | | 38 | 340 | Capt. Kuper, C.B. | En Route Rio. |
| Tweed | | 18 | 145 | Com. Lord F. Russell | Left Rio, July 2, cruising |
| Spider | | 6 | 36 | Lieut. Tomlinson | Branch packet. |
| Crescent | | | 30 | Master S. Bradley | Store ship at Rio. |
| *Steamers.* | *h.p.* | | | | |
| Conflict (sc) | 400 | 8 | 160 | Com. Drake | En route from Lisbon. |
| Cormorant | 300 | 6 | 160 | Com. H. Schomberg | Cruising. |
| Rifleman (sc) | 100 | 8 | 80 | Lieut. Branch | Gone to Monte Video. |
| Sharpshooter sc | 202 | 0 | 80 | Lieut. Bailey | Cruising at Rio. |
| Harpy | 150 | 1 | | Second Master Beatson | Tender to Southampton. |

WESTERN SQUADRON.

| | | | | | |
|---|---|---|---|---|---|
| Prince Regent | | 90 | 820 | Capt. W. F. Martin | Lisbon. |
| Leander | | 50 | 500 | Capt. S. C. Dacres | Do. |
| Phaeton | | 50 | 500 | Capt. G. Elliot | Do. |
| Arethusa | | 50 | 900 | Capt. T. Symonds | Do. |
| *Steamers.* | *h.p.* | | | | |
| Arrogant (sc) | 360 | 46 | 450 | Capt. R. S, Robinson | Lisbon. |
| Dauntless (sc) | 560 | 24 | 270 | Capt. E. P. Halsted | Left Queenstown Oct 28 |
| Encounter(sc) | 360 | 14 | 175 | Capt. R. Gordon | Ordered to Malta. |

WEST COAST OF AFRICA.

*Commander-in-Chief.*—Commodore Arthur Fanshawe, C.B.

| | | | | | |
|---|---|---|---|---|---|
| Tortoise | | 12 | 92 | Capt. Hutton | Strship, Ascension, Sep22 |
| Hound | | 8 | 80 | Com. Patten | S. Leone(sen. Offcr.) Sep. |
| Kingfisher | | 12 | 130 | Com. H. Harvey | South Coast. |
| Waterwich | | 8 | 80 | Com. R. R. Quin | Off Cape Lopez. |
| Heroine | | 8 | 80 | Com. J. B. Marsh | Lft Ascension, sealed ordr |
| Flying Fish | | 12 | 125 | Com. G. E. Patey | Off Cape Lopez. |
| Philomel | | 8 | 80 | Com. Forbes | South Division. |
| Wolverine | | 12 | 125 | Com. M. Falcon | Bights. |
| Ranger | | 8 | 80 | Com. T. Falcon | Sierra Leone, Sept. 5. |
| Sealark | | 8 | 80 | Com. Sotherby | Left Madeira, July 19. |
| Cygnet | | 8 | 80 | Com. Roberts | South Coast. |
| Dolphin | | 3 | 60 | Lieut. Temple | Lft S. Leone for Ascension |
| Spy | | 3 | 65 | Lieut. G. Western | Ascension, Sept. 22. |
| *Steamers.* | *h.p.* | | | | |
| Centaur | 540 | 6 | 200 | Capt. Buckle | (Flag) Cabenda. Aug. 8. |
| Cyclops | 320 | 6 | 195 | Capt. Hon. G. Hastings | Sth Coast. (sen. Officer). |
| Gladiator | 400 | 6 | 200 | Capt. Adams | Bights (senior Officer). |
| Phœnix (sc) | 260 | 6 | 120 | Com. Wodehouse | Bights. |
| Rattler (sc) | 200 | 8 | 100 | Com. A. Cumming | Off Ambrizette. |
| Archer (sc) | 100 | 10 | 160 | Com. Strange | Bights. |
| Hecla | 240 | 6 | 135 | Com. W. Beauchamp | Do. |
| Prometheus | 200 | 6 | 145 | Com. H. R. Foote | Lt. S. Leone for Ascension |
| Niger (sc) | 400 | 12 | 160 | Com. L. Heath | Left Devonport, Aug. 20. |
| Flamer | 120 | 3 | 66 | Com. St. Leger | Left Devonport, Sept. 5. |
| Firefly | 220 | 3 | 73 | Com. G. A. Seymour | Left Devonport, Oct. 1. |
| Jackal | 150 | 1 | 30 | Lieut. Fowell | Tender to Gladiator. |
| Dover | 90 | 1 | 25 | | Gambia. |
| Albert | 70 | 1 | | | Gambia. |

A Neapolitan boat called the *Maria della Lolera,* arrived at Malta on the 28th of October, with the crew and fifty passengers, all fugitives from the cholera, of the Tuscan brig *Carriere dei Due Amici*, wrecked on the 15th idem in the Gulf of Catania, when on her passage to Malta and Leghorn from Bengary, laden with wool and wheat. The Sicilian authorities were so panic stricken at the appearance of any one from a place where the cholera rages, that they lost no time in obliging them to depart in the first craft that could be found, in which, though a mere run across of about 100 miles, these poor miserable people were huddled together for a whole week.

The weather and storms of the past winter are stated to have been so severe, that the river Biobio has swelled to that degree, that pouring down from the interior with a great flood the waters have cut a deep channel into the bay of Talcahuano, and it is anticipated that the navigation thereby will be much improved.

## Examination of Masters of Merchant Ships.

A List of the Masters in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 9th of October.

Those marked thus [*m*] served last as mates.

| Names. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Deward, G..... | 2nd | 1810 | Magnet, 64 tons .. .. | ..... | London | Aug. 1st |
| Babot, G. J.. .. | 2nd | 1827 | Pekin, 1200 tons .. .. .. *m* | 402137 | — | — — |
| Collier, D.. .... | 3rd | 1822 | Glen Huntley, 505 tons..*m* | 27601 | — | — — |
| Power, J .. .. .. | 2nd | 1818 | Simpson, 127 tons .. | ..... | Liverpool | — — |
| Cooper, H. J.... | 2nd | 1813 | Sarah, 495 tons .. .. | .. .... | — | — — |
| Gillett, D.. .. .. | 2nd | 1824 | Scotia, 778 tons .. .. *m* | 328187 | Yarmouth | — 2nd |
| Allen, W.. .. .. | 2nd | 1827 | Saxon, 833 tons.....*m* | 15262 | London | — 5th |
| Phelps, T. M.... | 2nd | 1814 | Admiral Moorsom, 398 ts *m* | 329071 | — | — — |
| Searle, E.. .. .. | 1st | 1814 | Requiter, 187 tons ..... | ..... | Portsmouth | — — |
| Bogart, I.. .. .. | 1st | 1806 | Orleans. 931 tons .. .. .. | ..... | Liverpool | — — |
| Sprigs, S.. .. .. | 2nd | 1827 | Alarm, 94 tons .... .. .. | 163675 | — | — — |
| Foster, J. S ..... | 2nd | 1813 | Coldstream, 900 tons.... | ..... | London | — — |
| M'Clellan, J.... | 2nd | 1821 | Harold, 666 tons .....*m* | 188088 | Liverpool | — 6th |
| Cubbins, T... .. | 2nd | 1823 | Wilson, 565 tons .....*m* | 106105 | — | — — |
| Maniprise, W. T | 1st | 1817 | Thetis, 1530 tons .... . | ..... | Plymouth | — — |
| Sharp, R. .. .. . | 2nd | 1820 | William and Ann, 254 tons | 140580 | S Shields | — — |
| Forster, G..... | 1st | 1815 | Thomas Metcalfe, 314 tons | 66602 | — | — — |
| Symons, G..... | 2nd | 1825 | Robert Clive. 163 tons .. *m* | 71609 | London | — 8th |
| Howard, W. .... | 2nd | 1828 | Aboukir, 816 tons ..... *m* | 329119 | — | — — |
| Pointer, T. S. .. | 2nd | 1822 | Helen Munro, 185 tons ..*m* | 476430 | — | — — |
| Scotland, J. .... | 2nd | 1826 | Hampton, 440 tons .....*m* | 184792 | Leith | — 9th |
| Tobin, T. J. .... | 1st | 1823 | Courtenay, 608 tons .... | 273574 | Liverpool | — — |
| Robertson, J. C. | 2nd | 1821 | Eagle, 140 tons .... .... *m* | 392016 | Glasgow | — 10th |
| Smith, W. .. .. | 2nd | 1824 | Comet. 346 tons ..... *m* | 174946 | — | — — |
| Woolward, R. .. | 1st | 1826 | Esk, 230 tons ..... *m* | 154617 | London | — 12th |
| Langford, R. H.. | 2nd | 1823 | Grecian, 518 tons .... .. | 70944 | — | — — |
| Quihampton, J W | 3rd | 1827 | Tudor, 1064 tons.....*m* | 6116 | — | — — |
| Cowley, S. .. .. | 1st | 1810 | Avon, 258 tons ..... .. | 76450 | Liverpool | — 13th |
| M'Lay, J. .. .. | 2nd | 1827 | David Cannon, 1331 tons | 182990 | — | — — |
| Wood, W. J..... | 2nd | 1826 | Trafalgar, 1250 tons .... *m* | 31361 | London | — 15th |
| Parker, W.. .. .. | 2nd | 1820 | Emu, 381 tons .. .....*m* | 326622 | — | — — |
| Park, J.. .. .... | 2nd | 1809 | Emma Eugenia, 410 tons *m* | 423159 | — | — — |
| Glaister, E... .. | 3rd | 1816 | Elizabeth, 569 tons.....*m* | 32448 | — | — — |
| Green, D. .. .. | 3rd | 1806 | Chieftain, 361 tons..... | 29879 | — | — — |
| Straughan, J. W | 3rd | 1798 | Highbury, 266 tons..... | ..... | — | — — |
| Valler, W..... | 2nd | 1812 | Larne, 120 tons .. .. .... | ..... | — | — — |
| Birkett, D..... | 2nd | 1823 | Rosalind, 305 tons ..... | 102357 | — | — 19th |
| Heenan, W... .. | 2nd | 1821 | Bombay, 1414 tons .....*m* | 478707 | — | — — |
| Pemberton, T.W | 2nd | 1815 | William and Alfred, 337 ts. | 8795 | — | — — |
| Bacon, R. .. .... | 2nd | 1820 | Osbert, 320 tons .. .. [smn. | 29067 | — | — — |
| Cummings, H W | 3rd | 1823 | British Isles, 397 tons....*m* | 33207 | — | — — |
| Bargeer, F..... | 3rd | 1823 | Trafalgar, 1250 tons .... *m* | 32465 | — | — — |
| Bridger, W. A.. | 2nd | 1824 | Madura, 604 tons .. .... *m* | 9600 | — | — 22nd |
| Chapman, J. F.. | 3rd | 1818 | Bell, 367 tons ..... .... | 389553 | — | — — |
| Coveney, J. .. .. | 3rd | 1813 | Chieftain, 361 tons .....*m* | 14402 | — | — — |
| Evans, W.. .... | 1st | 1817 | Dogaum, 521 tons .... .. | 204292 | Glasgow | — — |
| Benson, J..,.... | 2nd | 1822 | Alberta, 628 tons..... | 72561 | — | — — |
| Peock, W..... | 1st | 1814 | Snowdon, 584 tons ..... | ..... | Liverpool | — — |
| Wilson, H ..... | 2nd | 1824 | West Indian, 328 tons .. *m* | 15981 | London | — 23rd |
| Black, T.. .... | 1st | 1827 | Haddington, 1650 tons .. *m* | 274556 | — | — 26th |
| Collett, E.. .. .. | 2nd | 1824 | Morayshire, 316 tons.... | 126230 | — | — — |
| Bufham, J..... | 2nd | 1810 | Wisbeach, 231 tons .. .. | ..... | S. Shields | — 27th |
| Diaper, J. ..... | 1st | 1813 | Burrells, 191 tons .. .. | ..... | Liverpool | — 28th |
| Galloway, R. W. | 2nd | 1823 | Arrow, 122 tons .. ..... | ..... | — | — — |
| Chadley, T. W. | 2nd | 1828 | Jane, 328 tons .....*m* | 391885 | London | — 29th |
| Henderson, A. R | 2nd | 1827 | Arrow, 175 tons .... .... | ..... | — | — — |
| Kyle, J.. .. .... | 1st | 1822 | Nestor, 495 tons ..... | 100866 | Glasgow | Sep. 2nd |
| Charlesson, R.W | 2nd | 1819 | Elizabeth, 950 tons..... | 31324 | London | — — |
| Evans, R. W.... | 1st | 1814 | Euxine, 729 tons..... | ..... | — | — 3rd |
| Toynbee, H. .... | 1st | 1819 | Ellenborough, 1034 tons | 28669 | — | — — |
| Bufham, J..... | 1st | 1810 | Wisbeach, 231 tons .. .. | ..... | S. Shields | — — |

| Names. | Class. | Date of Birth. | Present or last Service. | No. of Register Ticket. | Where Examined. | When. |
|---|---|---|---|---|---|---|
| Diaper, T. | 2nd | 1823 | Wetherall, 153 tons | 75943 | Liverpool | Sep. 3rd |
| Dales, H. | 2nd | 1823 | Vivid, 298 tons ..m | 4567 | London | — 5th |
| Spouse, W. | 2nd | 1824 | St. Olai, 170 tons | 163022 | — | — — |
| Coates, J. E. | 2nd | 1821 | Alexandrina, 300 tons ..m | 327497 | — | — — |
| Brown, E. | 1st | 1816 | Emerald, 292 tons | | Newcastle | — — |
| Wilson, A. | 2nd | 1824 | Earl Durham, 378 tons ..m | 80249 | — | — — |
| Greenwell, D. S. | 2nd | 1827 | Royalist, 241 tons | 170660 | — | — 6th |
| Rickaby, T. H. | 2nd | 1829 | Cleopatra, 251 tons..m | 260145 | — | — — |
| Blyth, W. | 2nd | 1816 | Brandon, 209 tons | 40984 | Yarmouth | — — |
| Marsters, G. W. | 2nd | 1810 | Alabama, 723 tons ..m | 239611 | Liverpool | — 7th |
| Calhoun, H. A. | 2nd | 1822 | Blanch, 411 tons | | — | — — |
| Monk, H. | 2nd | 1821 | Countess of Zetland, 324tm | 15852 | London | — 9th |
| Stone, J. | 2nd | 1814 | Fortesque, 306 tons m | 390467 | — | — — |
| Watkins, R. | 1st | 1823 | William Stoveld, 157 ts. m | 31901 | — | — 10th |
| Ingleton. J. | 2nd | 1820 | Borneo, 459 tons | 257106 | Glasgow | — 11th |
| Legge, W. B. | 2nd | 1830 | Forfarshire, 614 tons..m | 346391 | London | — 12th |
| Freeman, J. A. | 3rd | 1806 | Prince Albert, 476 tons..m | | — | — — |
| Cleave, J. | 2nd | 1824 | William Money, 900 tons m | 305324 | Gloster | — — |
| Lawson, J. | 2nd | 1820 | Royalist, 216 tons | 41319 | S. Shields | — — |
| Lesslie, W. | 1st | 1817 | Midas, 256 tons | 189894 | Dundee | — 14th |
| Kemp, T. | 1st | 1820 | Creamore, 208 tons | | Liverpool | — — |
| Munden, R. | 1st | 1805 | Canondah, 225 tons | | — | — — |
| Fowler, A. | 3rd | 1808 | Observer, 154 tons | | Plymouth | — — |
| Ledger, J. | 2nd | 1822 | Enchantress, 284 tons | 25767 | London | — 16th |
| Wilson, J. | 2nd | 1815 | Harriet, 292 tons | 6354 | Newcastle | — — |
| Vincent, R. | 2nd | 1826 | Chevy Chase, 285 tons | 69853 | — | — — |
| Stevenson, D. | 1st | 1806 | Hyndeford, 571 tons | | Glasgow | — — |
| Sullivan, E. | 2nd | 1822 | Ocean, 570 tons ..m | 177365 | — | — — |
| Smith, T. I. | 3rd | 1820 | Reserve, 335 tons ..m | 9094 | London | — 17th |
| M'Intyre, J. | 2nd | 1823 | Briton, 250 tons | 118026 | Glasgow | — — |
| Dolbel, P. | 2nd | 1817 | Rambler, 247 tons ..m | 23665 | London | — 19th |
| Smith, H. | 2nd | 1817 | Madura, 604 tons | | — | — — |
| Corbett, G. | 2nd | 1824 | Faize Allum, 800 tons m | 478712 | — | — — |
| Barnett, W. C. | 2nd | 1819 | Emanuel Boutcher, 217 tsm | 12722 | — | — — |
| Austin, J. | 3rd | 1811 | Calpe, 250 tons | 2497 | — | — — |
| Newton, M. | 2nd | 1823 | Margery, 318 tons ..m | 110734 | S. Shields | — — |
| Proctor, W. | 3rd | 1818 | Perseverence, 177 tons | 170912 | — | — — |
| Blackmore, E. | 1st | 1824 | Eliza, 700 tons ..m | 28458 | London | — 23rd |
| Morwick, H. | 2nd | 1821 | Castle Eden, 930 ton ..m | 26768 | — | — — |
| Lambert, C. F. | 2nd | 1828 | Mary Ann, 500 tons ..m | 423097 | — | — — |
| Russell, H. | 2nd | 1819 | Severn, 256 tons | | — | — — |
| Copeman, F. | 3rd | 1822 | Persian 347 tons ..m | 107645 | S. Shields | — 24th |
| Morgan, W. | 2nd | 1813 | Lord G.Bentick, 528 tons | 74015 | Liverpool | — — |
| Stooke, W. T. | 2nd | 1826 | Tapley, 313 tons ..m | 18089 | — | — — |
| Peart, J. A. | 2nd | 1828 | Robert, 261 tons | 352697 | Newcastle | — 26th |
| Laws. R. H. | 2nd | 1827 | Benjamin Greene, 397 ts. m | 24179 | London | — — |
| Joy, J. K. | 2nd | 1819 | Tagus, 900 tons | 13497 | — | — — |
| Dubery, W. | 3rd | 1817 | Jannet, 317 tons ..m | 346313 | — | — — |
| M'Kenzie, J. | 2nd | 1828 | Tartar, 267 tons ..m | 132690 | Dundee | — 27th |
| Luckham, E. J. | 3rd | 1818 | Adelaide, 283 tons ..m | 38429 | London | — 30th |
| Gilkison, R. B. | 1st | 1825 | John Cooper, 650 tons | | Glasgow | — — |
| Barr, R. | 1st | 1813 | Glen Huntley, 505 tons | | — | — — |
| Pizzey, J. B. | 3rd | 1819 | Calliope, 716 tons ..m | 17587 | London | — — |
| Stott, J. | 2nd | 1815 | Arab, 269 tons | | Newcastle | — — |
| Stobo, R. | 1st | 1817 | Dee, 1800 tons ..m | 166692 | London | Oct. 1st |
| Ball, J. | 2nd | 1828 | Enchantress, 284 tons | 161377 | — | — 3rd |
| James, H. T. | 2nd | 1823 | Lucy Wright, 636 tons ..m | 227965 | — | — — |
| Darrock, J. | 2nd | 1818 | Dalkeith, 93 tons | 213281 | Glasgow | — — |
| Orkney, J. | 2nd | 1828 | Amiga, 350 tons | 34836 | — | — — |
| Easson, W. R. | 1st | 1820 | Apame, 169 tons ..m | | Dundee | — 4th |
| M'Kenzie, J. | 2nd | 1823 | Apame, 169 tons ..m | 8761 | — | — 5th |
| Reynolds, W. M. | 1st | 1817 | Xarifa, 202 tons | | Liverpool | — — |
| Kemp, C. R. | 2nd | 1828 | John Witt, 385 tons ..m | 12068 | London | — 7th |
| Curline, W. | 1st | 1819 | Blenheim, 1313 tons ..m | 388485 | — | — 8th |
| Burcham, H. B. | 2nd | 1826 | Tribune, 210 tons ..m | 259683 | Yarmouth | — — |
| Barrett, J. | 1st | 1816 | Glanmire, 247 tons | | Liverpool | — — |
| Cairns, J. | 1st | 1817 | Fanny, 294 tons | | S. Shields | — — |
| Nolan, M. | 1st | 1824 | Mary and Ann, 212 tons. | 145705 | Glasgow | — — |
| Tolmie, A. | 2nd | 1825 | Robin Gray, 291 tons..m | 130326 | — | — — |
| Munro, D. | 2nd | 1825 | Cape Breton, 264 tons ..m | 89301 | — | — — |
| Sharp, R. | 1st | 1807 | Tay, 1858, tons | | Milford | — 9th |

## Bottle Papers.

(119*a*.) *Beaufort S. C., July 1st*, 1850.

Dear Sir.—The inclosed slip was picked up on the beach on the Hunting Island, in a bottle on the 28th of June ulto.

This place is about forty miles to the southward of Charleston Light, and as the bottle was found but a few hours after it landed this information may be considered sufficiently explicit as to time and place.

I am, &c.,

B. J. Johnson.

*To the Editor N.M.*

*April 25th*, 1850.

"Barque *Samuel Spynce*, from Laguna towards Cork, all well, lat. by obs. 25° 4′ N., and long. by chrs. 86° 30′ W., air 80½°, and surface water 79½°. I am surprized to find that we have had very little current indeed since we stood to the northward off the Campeche Bank, at 88° W. Whoever may find this, pray note the position and date, and forward to the *Nautical Magazine*, London.

R. Leighton.

Our best thanks are due to Mr Johnson, for his attention in forwarding this paper. The bottle appears to have been carried by the Gulf Stream from the Gulf of Mexico, past the Florida Cays and the Bahama Bank, and thrown ashore from its western edge on the coast of the States where it bends to the north-east. The distance that it must have travelled is about 850 miles, giving it a rate of 13 miles per day ; but it may have been carried to the northward, and drifted to the southward where it was found, in the counter current of the stream which prevails in shore. Being seen as soon as it landed gives it additional value.—Ed.

---

(119*b*.) *May 1st*, 1847.

"Her Britannic Majesty's surveying vessel "*Thunder*" from Cat Island, Mississippi Sound, to Sisal, latitude obs. 27° 49′ N., longitude chron. 86° 42′ 47″ W. This is to determine the course of the Gulf Stream. Whoever will send this to the Hydrographer's Office, London, would oblige the writer of this. Tried for soundings $\frac{0}{170}$.

"A light breeze from the south-east, current N. 6° W., 9 miles in twenty-four hours, var. 9° E. All well on board."

H. W. M.

*British Vice Consulate, Key West, Feb. 21st*, 1850.

Sir.—The enclosed paper was handed to be this morning, by one of the seamen of a wrecking vessel, stating that he picked up a bottle containing it, on the 16th inst., on Logerhead Key, one of the Florida Keys, about twenty-five miles E.N.E. from this place.

I am, &c.,

O. O'Hara, *H.B.M. Vice Consul.*

It appears to have fallen on the northern edge of the Gulf Stream and to have been nearly in the same meridian stopped by Cay West. The former starting nearly three degrees to the southward, seems to have been more in the fair flow of the Gulf Stream, but still on the northern edge.—Ed.

(48*a*.) *British Consulate, St. Michael's, April 27th*, 1850.

Sir.—I beg leave to forward to you a bottle paper picked up off the south coast of this island on the 20th instant, and delivered to me this morning, and also a short account of the weather we have had here during this month.

The latter may assist you in elucidating the cause, which, supposing the ship to have been to the westward of Madeira, have brought the paper by a N.N.E. course to this island. The new charts of the Azores will shew you that the tidal current, as shewn by the time of high water at the several islands, takes this course across them.

I am, &c.,

THOMAS CAREW HUNT.

*To the Editor N.M.*

"Brig *London*, of Dundee, latitude 31° 25′, longitude by chronometer 28° 30′.

"W. M. Ormson, Master, requests this to be sent to the Editor of Purdy's Memoir of the Northern Atlantic Ocean, when picked up."

Latter end of March south-westerly strong winds.

| 1850. | Wind. | | Barometer. | 1850. | Wind. | | Barometer. |
|---|---|---|---|---|---|---|---|
| | | | means. | | | | means. |
| April 1 | N.W. | strong | 29.68 | April 11 | W.N.W. | light | 30.15 |
| „ 2 | S.W. | hard | 29.60 | „ 12 | Westerly. | fresh | 30.16 |
| „ 3 | W.S.W. | „ | 29.60 | „ 13 | W S.W. | hard | 30.20 |
| „ 4 | W. | fresh | 29.90 | „ 14 | N. Westerly | fresh | 30.16 |
| „ 5 | N.W. | „ | 30.09 | „ 15 | N.E. to W. | light | 30.26 |
| „ 6 | W.S.W. | strong | 29.95 | „ 16 | Westerly | „ | 30.21 |
| „ 7 | N.W. | fresh | 29.90 | „ 17 | W.S.W. | fresh | 30.26 |
| „ 8 | W. | light | 30.01 | „ 18 | W.S.W. | strong | 30.32 |
| „ 9 | W.N.W | fresh | 29.99 | „ 19 | W.S.W. | fresh | 30.43 |
| „ 10 | W.N.W. | „ | 30.11 | „ 20 | S.W. | light | 30.45 |

Our thanks are due to Mr. Consul Hunt, for his attention in sending us this paper, which has been transferred to Mr. Laurie, for the Editor of Purdy's Memoir. The master of the *London* has omitted to date his paper, and we are therefore at a loss for the interval of time it has occupied in reaching St. Michael. It has no doubt *made good* a N.N.E. course about 400 miles, and it is very remarkable that the bottle 56*c*,* found at Flores made a similar course, also from much about the same latitude, and a difference of longitude much about the same as that between the two islands. The westerly winds of April previous to the arrival of this bottle 48*a* shew that it must have come from the westward, and we may conclude that they have both been carried to the westward and northward until they were again drifted to the eastward, along with the usual easterly set in the higher latitude of the Azores. The bottle 56*c* took an interval of 301 days, which would allow of its having made a tolerably wide circuitous course to its *destination*. But it is an extraordinary coincidence to find two bottles to have made exactly the same course in so interesting a part of the Atlantic.

* Given in p. 45 of our January number, where it is misprinted 86*c*.

(42*a*.) *Public Treasury, Belize, Honduras, 16th September*, 1850.

Sir.—I have the honor to inclose a communication from the Commander of H.M.S. *Investigator*, in compliance with the wish expressed therein. It was picked up at Ambergris Cay, the northern extremity of this settlement on the 27th ultimo, and brought to me a few days afterwards. This is the first eligible opportunity I have had of sending it on.

I am, &c.,

JNO. GOUGH.

*To the Secretary to the Admiralty.*

"*Thrown overboard from Her Majesty's Discovery Ship Investigator, Friday, 22nd Feb.* 1850.

" Latitude 12° 25′ N. } Got the trade winds in Latitude
Longitude 26° 5′ W. } 20° 0′ N., on the 18th inst.

" Crew all well. Parted company with Her Majesty's Discovery ship *Enterprize*, on Friday, 1st February, 1850, in thick weather and strong winds.

" Whoever may pick this up, it is requested that the intelligence may be forwarded to the Secretary of the Admiralty, London.

"R. MCCLURE, *Commander*."

This has followed the usual track making good a course W. 6½° N., about 3,600 miles at the rate (by interval 206 days) of 17 miles per day.—ED.

---

(118*a*.) *British Consulate, New Orleans, Oct. 26th*, 1850.

Sir.—I have the honor to transmit to you herewith a document picked up on Mustang Island, by Mr. William Stewart, who forwarded it to this Consulate as the most convenient medium for the fulfilment of the request embodied in the document.

I am, &c.,

DAN. AHEN, *H. B. M. Acting Vice Consul.*

*To the Hon. Secretary, Admiralty, London.*

"Her Majesty's ship *Scorpion*, 25th of June 1850. Lat. 21° 50′ N., long. 86° 45′ W., off Cape Catoche, Yucatan, wind E.N.E., No. 3, B.C. The current is setting to the eastward, about two knots per hour.

G. B. LAWRENCE, *Commander.*

Found on Mustang Island, on Wednesday, the 9th of October, 1850, about fifteen miles south of Awansas Pass by me

WILLIAM STEWART.

The place of arrival is rather above 600 miles from that of departure, and very near those of the bottles Nos. 117, and 119. We have numbered this on the chart 118*a*.

---

## NAUTICAL NOTICES.

### DEEP SOUNDINGS SOUTH EAST OF BERMUDA.

Another interesting result of the voyage was the obtaining of deep-sea soundings in the vicinity of the Bermuda Islands. We quote rom the

narrative, as published in the *New Bedford Mercury*:—"Here, in lat. 27° 10′ N., long. 62° 45′ W., on the 20th of April 1850, the nearest land being Bermudas, bearing N.W.b.N., and distant 345 miles, water blue with much gulf weed, weather calm, no current, the boat was lowered; let run the lead, and found bottom in 744 fathoms. April 15th, lat. 27° 31′ N., long. 60° 3′ W., Bermuda bearing N.W.b.N., 300 miles, sounded and got bottom in 366 fathoms. April 29th, lat. 29° 20′ N., long. 64° 11′ W., Bermudas, N.W.b.N. 160 miles, sounded and got bottom in 620 fathoms. The time occupied in running out the line varied from 20 to 30 minutes. The line was constructed thus: first, 100 fathoms five parts of shoe thread; second, four parts; third, three parts; fourth, two parts; remainder, single. The lead weighed about five lbs.; the whole wound upon a light reel, and held by hand. In this process of obtaining soundings the lead is not to be hauled up.—*Daily News, August, 28th,* 1850.

---

*St. John's Newfoundland, 22nd October,* 1850.

Light House at Cape Pine, Newfoundland.—Notice is hereby given, that the light recently erected on Cape Pine, on the south coast of this island, will be exhibited on and after the 1st day of January next, from sunset to sunrise, for the benefit of navigation.

The character of this light is that of a Brilliant Revolving Light, of which the greatest intensity will be apparent in every direction seaward three times in a minute. It will burn at an elevation of three hundred and two feet above the level of the sea, and will be visible in clear weather at a distance of thirty miles.

The erection is a round tower, fifty feet high, painted with bands red and white alternately.

Nicholas Stabb,
H. P. Thomas,
J. J. Grieve,
G. T. Brooking,
} *Commissioners of Light Houses.*

---

Glasgow, Nov. 7th.—Capt. Henderson of the *Chaucer*, arrived here from the Mauritius, reports that on the 27th of October, at noon, in lat. 42° 41′ N., long. 28° 45′ 30″ W., the sea being much agitated and the water discoloured, at 2 o'clock P.M., tried the soundings, and got bottom at 48 fathoms. The ship having gone eight miles N.b.W., at 4 o'clock P.M. sounded, and found ground at 50 fathoms, hard, rocky bottom, in, by sights taken, lat. 43° 49′ N., long 29° 4′ 15″ W. This rocky bank must extend from the southward, as the water was observed to be discoloured at 10 o'clock A.M., and appeared as if a current was setting over it. Captain Henderson states there can be no doubt as to the existence of the bank, as the chronometer was quite accurate, by sights taken off the Island of Fayal.

[The ship must have gone more than "8 miles" by the latitude and longitude between noon and 3h. P.M. Will Capt. Henderson be so good as to set this right?—Ed.]

---

Lighthouse Dues in Spain.—By official accounts received at Lloyd's, it appears a royal order has been published in the *Madrid Gazette*, to the effect that in future foreign vessels discharging at a port in Spain, may load there, or at any other Spanish port, without being subjected to the payment of more than one charge for lighthouse dues.

QUEEN ADELAIDE MEMORIAL FUND, *for the Relief of the Orphan Daughters of Officers in the Royal Navy and Marines.*

*Patron.*

HIS GRACE THE ARCHBISHOP OF CANTERBURY.

*Vice-Patronesses.*

Her Grace the Dowager Duchess of Beaufort,
The Right Hon. the Countess of Hardwick,
The Right Hon. the Countess Howe,
The Right Hon. the Lady F. Fitzclarence,
The Right Hon. the Lady John Hay,
The Hon. Lady Blackwood,
The Hon. Lady Capel,
The Hon. Mrs. Percy,
The Hon. Mrs. Newnham Collingwood,
Lady Thornborough,
Lady Hillyar,
Lady Lawford,
Lady Keats,
Lady Lee,
Lady Tremayne Rodd,
Lady Adam,
Lady Beaufort,
Lady Walker Drunmond,
Lady Marshall.

*President.*

Admiral Sir Charles Adam, K.C.B., Governor of the Royal Hospital, Greenwich.

*Vice-Presidents.*

Rear Admiral the Right Hon. Earl Cadogan,
Capt. The Right Hon. Earl Talbot,
The Right Hon. Earl Howe,
Major-Gen. the Rt. Hon. Lord F. Fitzclarence, G.C.H.
Commodore the Right Hon. Lord John Hay, C.B.
Admiral the Right Hon. Sir George Cockburne, G.C.B.
Admiral the Hon. Sir T. B. Capel, K.C.B.
Rear-Ad. Sir Augustus Clifford, Bart.
Rear-Ad. Sir Joshua R. Rowley, Bart.
Sir John Heron Marshall, Bart., R.N.
Admiral Sir T. Byam Martin, G.C.B.
Adm. Sir E. Codrington, G.C.B., G.C.M.G.
Admiral Sir John West, K.C.B.
Admiral Sir Charles Ekins, K.C.B.
Admiral Sir William Hall Gage, G.C.H.
Admiral Sir Francis Austin, K.C.B.
Rear-Admiral Sir F. Beaufort, K.C.B.
Vice-Admiral Thomas,
Rear-Admiral Pasco,
Capt. Vincent, K.H.

*Trustees.*

Admiral Sir Charles Adam, K.C.B.; Commodore the Right Hon. Lord John Hay, C.B. Superintendent of the Devonport Dockyard; the Ven. Archdeacon Robinson, Master of the Temple.

*Committee.*

Vice-Admiral Sir Charles Malcolm, Kt.

Capt. Sir Samuel Brown, K.H.
Rear-Admiral E. F. Vernon Harcourt.
The Ven. Archdeacon Robinson.
The Rev. Canon Dale, M.A.
Capt. James Scott, R.N., C.B.
Capt. Dickinson, R.N.
Capt. M. H. Sweeney, R.N.
Commodore Bagin, R.N.
Capt. Wesley, R.M.
Thomas Lewin, Esq.
Rev. J. K. Goldney, M.A.
Rev. H. Clissold,
Rev. J. S. M. Anderson, M.A
Edward F. Leeks, Esq., F.L.S.

*Ladies Committee.*

Lady Adam,
Lady Brown,
Mrs. Admiral Walpole Browne,
Mrs. Colonel Bunce,
Miss Emma Codrington,
Mrs. Dickinson,
Mrs. Hooper,
Mrs. Thomas Lewin,
Miss Macleod,
Mrs. Miles,
Miss Robinson,
Mrs. Skyring,
Mrs. Stilwell,
Miss Tetley,
Miss M. Wrench,
Miss Young.

*Treasurer.*

Thomas Stilwell, Esq., 22, Arundel-street, Strand.

*Bankers.*

Messrs. Cocks and Biddulph, Charing Cross; Messrs. Ransom and Co., Pall Mall, East; Sir Claude Scott and Co., Cavendish Square; Messrs. Williams and Co., Birchin Lane, London; Messrs. Casher, Portsmouth; Messrs. Oliver, Plymouth, by whom subscriptions will be thankfully received and by all the Navy Agents.

The nature and claims of this Institution, having been brought forward at a public meeting held at 32, Sackville-street, Piccadilly, at which Admiral Sir Charles Adam, K.C.B., presided, the Committee are desirous of making an urgent appeal to the nation at large to assist them in carrying out a plan so auspiciously begun.

Its objects are:—

1st—To grant aid towards the maintenance of Female Orphans of officers in the Royal Navy and Marines.

2nd—To grant aid towards the support of such pupils in the "Royal Naval Female School" as are most necessitous, or toward the payment of the sum necessary for the admission of pupils into that School. These pupils to be styled "Queen Adelaide Scholars.

3rd—To grant aid towards the establishment of such Female Orphans in any respectable situation in this or any other country.

4th—To afford casual relief, taking into consideration the whole circumstances of the family, to such Female Orphans as are above the age when they cease to receive grants from the Compassionate Fund. The aid in all cases to cease on marriage.

Nothing can more plainly set forth the urgent necessity for such an institution, than the fact that, already applications have reached the Committee from many cases of destitution for which no adequate relief can be expected from any other source, and also that many widows have been obliged to remove their daughters from the "Royal Naval Female School" from absolute inability to pay the required sum.

In pleading the cause of the sailor's orphan, the Committee feel that they are striking a chord which must vibrate into the heart of every lover of his country, a country which under God's providence has so often found safety in "her wooden walls and hearts of oak." They trust, therefore, that all will consider it a privilege to participate in alleviating the desolation of the children, when they recollect that the fathers have devoted themselves to the service of their country, and the defence of those to whom they now appeal; at the same time the gigantic nature of the undertaking convinces them not only of the strenuous and unremitting exertions required on their part, but also the need of national and universal support to enable them to grapple with the difficulties attendant on establishing such an institution. Much, however, is accomplished by God's blessing upon united exertions and in inviting a nation's co-operation, the Committee trust, that none will be deterred from rendering assistance by the smallness of their influence or means.

They beg especially to call attention to the importance of establishing local committees throughout the kingdom, more particularly in the naval ports. The assistance of the ladies of England is earnestly and confidently requested, for it cannot be doubted that they will be most zealous in forwarding an object which is at once the evidence of a nation's gratitude for its free and happy homes, and an undying testimony to the virtues of that royal lady who so nobly displayed the characteristic graces and virtues of

their sex. Every information will be afforded on application to the Secretary, or to Mrs. Skyring, Admiralty, Somerset House, who will be most happy to supply collecting cards.

By order of the Committee,

ALLEN STONEHAM, Secretary.

23, *Sackville-street, Piccadilly.*

---

CARRIER PIGEONS.—Notes respecting Carrier Pigeons, by a gentleman of Manchester, experienced in their habits:—

1st.—The message is written on a thin piece of tissue paper, which is rolled round the leg of the bird, and secured with fine silk or thread: fastened in any other way it would impede the bird's flight.

2nd.—They do not travel at night.

3rd.—They require training, first about the town, then two miles, four, eight, fifteen, twenty, thirty, forty-five, sixty, eighty, and say to Birmingham, the first season's performances; the next season they go by degrees to London, between Birmingham and London divided into three or four stations. I have flown them from London several times.

4th.—I do not think it possible that they could have flown from Lancaster Sound or Davis Strait to England. Even to fly across the Channel for instance, from London to Antwerp, they require to be taken out to sea by degrees.

5th.—They roost at night, I have repeatedly had them missing, and never knew them to return after dark; foggy weather is a great hindrance to their return, great numbers are always lost should fog set in. In a long journey, this renders our climate exceedingly unfavourable to the accomplishment of great distances with any certainty.

6th.—The greatest distance flown, I believe to be from Sebastian in Spain, in 1844, to Vervier, about 600 miles; they have also flown from Turin and Bordeaux, to Vervier. The merchants and manufacturers of Vervier, have accomplished the most in flying of pigeons. In August 1844, they started 200 from Sebastian, to contend for the great prize, seventy returned to Vervier.

To Bordeaux, eighty-six were sent, and twenty returned.

The Belgian amateurs consider that they train most easily and to greater distances, from south flying northwards, and hence their long races are generally from south to north, they have clubs regularly established for their annual pigeon races.

I have the programme of the Sebastian race by me, printed in French.

From the above facts, gathered from the most celebrated continental pigeon amateurs, and from my own experience with the highest bred birds known, I am inclined to think that sight and education through generations of birds, have more to do with their performances than instinct. If instinct only, why should fog produce delay. The English breed of carriers are merely kept as fancy birds, and are not used for flying distances. I have tried them but with no success. They are said to have been originally introduced from Persia, and are much larger than the Belgian birds: the latter are small, strong, and dumpy birds, with a very round high forehead, and short beak; our English carriers are valued for directly the contrary qualities. I should have been exceedingly gratified had my experience enabled me to confirm the arrival of those birds, which have been reported from the Arctic Regions, but all my information on the subject, is decidedly opposed to the possibility of such a journey being accomplished by carrier pigeons.

## Nautical Sayings and Doings.

A few lines will keep our readers informed as to the state and prospects of of the Marine Telegraph system. The idea of laying across Dover Straits a new wire like the one first tried is abandoned. The storm which has just swept away a considerable part of the new harbour-work would have had but little mercy on so frail an instrument; and any line running across the great fissures in the bed of the Channel must be prepared to resist the strain of a cable from a hundred gun ship. The new wires are, therefore, to be inclosed in ropes of four or five inches in diameter; the first layer being made of gutta percha, and the outer one of iron wire, all chemically prepared to resist the action of water and the attacks of marine animalculæ. In each cable there will be four lines of communication; and two cables will be laid down at a distance from each other of three miles,—so that an accident which might injure one of them will probably not reach the other. The whole it is said, will be ready in May next; when it is proposed to have a grand inauguration,—Prince Albert being at one end of the wire and the President of the Republic at the other. Of course, this idea of an inter-national fete comes to us from Paris. The point of departure for the Irish line is not yet fixed: but surveys of the coast have been made, and it only waits, it is said, for the report of the Commission appointed to inquire into the most eligible port for a great transatlantic packet station, to be commenced. At present there are two rival routes in the field, each with its own body of supporters. One begins at Holyhead, and crossing the Channel to Kingstown, proceeds through Dublin by the Great Southern and Western Railway to Cork and Galway. If Galway be elected as the station, of course this will be the route adopted. The other proposed line would cross from St. David's Head to the nearest point on the opposite coast, and then run along the road to Wexford, Waterford, and by the extreme western points of Ireland, to Crookhaven, the last point now touched by vessels outward bound for the Atlantic. Whichever line be adopted the advantages to commerce and to Government in Ireland will be great. Between Crookhaven and Halifax the distance is 2,155 miles, and the steamers pass in six days from point to point. A net-work of telegraphs already connects Halifax with the settlements on the lake frontier, and with all the chief cities of the American Union, so that political and all other information would be transmitted from one continent to the other in six days instead of, as at present, in twelve. Sanguine speculators profess to believe in the possibility of a wire under the Atlantic, a feat to which science may reasonably look; but it is not probable that a company will be found to effect the expensive junction until the shorter marine lines shall have been for some time in practical and successful working order.—*Athenæum.*

Constantinople.—on the 13th ult., whilst at general quarters, a Turkish line-of-battle ship was blown up, her powder magazine having been fired. Fortunately neither Captain Slade nor Commander Harper were on board. All the windows in the vicinity of the dockyard are broken. The accident cannot be accounted for.

Monument to Christopher Columbus.—A tardy justice, it seems, is to be rendered to this great man, even in his native country. Two of the first men of Spain have taken the lead in this enterprise:—we mean Messrs. Martinez de la Rosa and Salvador Bermudez, both known as men of letters and liberal politicians. A subscription has been started for the purpose, which is fast receiving the names of persons of every rank. The situation for the colossal monument has been most appropriately chosen on an elevated spot of Palos

de Maguer, opposite the convent of St. Ann, whence Columbus started on his first adventrous expedition for the New World. The plans and designs for the monument will be subjected to a competition of all Europe, and Mr. Bermudez will undertake an especial trip to England for those purposes. The preliminary arrangements hint at a colossal statue twenty feet high, and groups surrounding it, forming a base of forty feet in circumference. The statue to be of the finest Florentine bronze, and the pedestal of reddish granite. The lowest estimate of the Columbus monument is £20,000. As the brother of Columbus long dwelt in London as an agent of Christopher's for the purpose of proposing the plan to Henry VII., there is some ground for sympathy here in the monument to the memory of the great discoverer.—*Architect.*

The original portrait of Sir Francis Drake, wearing the jewel round his neck which Queen Elizabeth gave him, is now in London for the purpose of being copied for the United Service Club. Sir T. Trayton Fuller Elliot Drake, to whom it belongs, brought to London at the same time, for the inspection of the curious in such matters, the original jewel itself:—which, beyond the interest of its associations with Elizabeth and Drake, is particularly valuable as a work of art. On the outer case is a carving by Valerio Belli, called Valerio Vicentino, of a black man kneeling to a white. This is not mentioned by Walpole in his account of Vicentino. Within, is a capital and well-preserved miniature of Queen Elizabeth, by Isaac Oliver Oliver, set round with diamonds and pearls.

Steam Navigation to the Cape of Good Hope.—We are given to understand that the first screw propeller of the General Screw Navigation Company will sail with the mails for Cape Town on the 15th of December. This event will constitute an era in the history of the colony.

The changes in the Norfolk Estuary about to be commenced under the superintendence of Sir John Rennie and Mr. Robert Stephenson will form one of the largest engineering works ever undertaken in the eastern counties of England. The main object is, to reclaim from the sea a tract of land of great agricultural value, measuring 32,000 acres; but in addition to this, the fens and the lowlands known as the Bedford Level, will be thoroughly drained, and the navigation of the Ouse, from the sea to Lynn and beyond, will be greatly improved. The estimated expense of reclamation is £20 an acre—for the entire work £640,000. Towards this large sum the corporation of Lynn has voted £60,000. and the Fen proprietors £60,000 more; the remainder is to be raised by a joint-stock company. The land, it is said, will be worth on the average £45. an acre; so that in a few years it is believed, the outlay will be entirely repaid.

Rescue from Drowning.—A few days ago a boy fell overboard from a barge lying in the Grand Surrey Docks near the premises of Moore, one of the men employed by the company. The moment the alarm was given, Moore started out of his house, plunged into the water, and brought up the boy from under the barge in a state of complete insensibility. Moore's wife was washing at the time, and a tub of hot water being ready, she placed the poor child in it, and before professional assistance could be procured, had the satisfaction to restore him in a few minutes to consciousness, and took him home to his parents next morning in perfect health. The life of the boy was the fifth human life saved by Moore, in the Surrey Docks, and the eighth he has saved during his own life by his intrepidity and coolness. The Dock Company presented him with a small gratuity, and instructed their secretary to communicate the particulars of the accident to the Royal Humane Society.

Australian Boiled Beef.—The vessel *Cornwall,* arrived in the docks from Sydney, New South Wales, has brought 10,000 tin packages of boiled beef as part of her cargo, consigned to order.

At St. Stephen's, New Brunswick, a vessel is on the stocks, inside of which there is a large steam-boat, all in complete order. The ship and steamer are intended for a California adventure. A part of the hull of the vessel being laid, it was let off the ways, and the steam-boat was floated into it, and then they were hauled up again. The gentleman who owns the vessels, says that he can have the steam-boat ready for running in two days after he arrives at San Francisco. This is certainly a novel enterprise, and is worthy of having been planned and executed on the Yankee side of the river.

The Government works exhibit an interesting scene of activity, and attract numbers of visitors daily. Some of the breakwater, in an unfinished state, is now seen projecting from the shore, and the deposition of stone from the quarries is regularly and rapidly carried forward by railway. A number of additional tram wagons have lately been received at the works, with a view to the employment of a still larger number of convicts, on the arrival of whom this great national enterprise will be carried on with increased rapidity. Amongst the remarkable machinery to be observed on these works, may be mentioned a gigantic crane on a moveable platform, intended for the raising of stones from the recesses of the quarries, and which is capable of sustaining with ease the immense weight of sixty tons. An engine has also been recently erected for the chemical impregnation of the driving piles for their preservation, by a new and ingenious process, by which they are rendered impervious to the action of water. The interest which attaches itself to Portland from its rare and abundant fossils, its striking geological stratification, and antiquarian remains is sufficiently notorious. These attractions are now varied and enhanced by the grand exhibition of the fertile resources, the all-conquering ingenuity, and profound achievements of the skilful engineer bending to his uses the most stubborn obstacles, and circumscribing the power and sway of the mighty ocean.—*Vide* "Book of Remarks on the subject of an Asylum Harbour, for Portland Roads," as projected by the late Mr. John Harvey, Price 1s. Post Office, Weymouth.

A steam company is on the eve of being formed at Constantinople for towing vessels through the Bosphorus and the Dardanelles. The capital is to be £150,000 in 1500 shares of £100 each. The Sultan and most of the ministers are already on the list. It is strange that this company, which offers a sure success, should have been so long delayed in being formed.

The Mauritius papers by the Overland Mail reach to the 23rd of August. The question of steam communication had at length become public, and a committee appointed to consider the question had not concurred in the offer made to establish a Line, via the Cape.

The trade in copper between Port Adelaide (South Australia), and our East India possessions is beginning to show some activity, 246 tons of the copper have been recently shipped from Adelaide to Singapore.

From Nova Scotia we are informed that Earl Grey had notified the Provisional Committee that the British Government will grant assistance towards constructing the Halifax and Portland Railway. Earl Grey, it is said, approved of the enterprize, and expressed a belief that Halifax would ultimately become the chief port for transatlantic communication.

Mr. Farraday, at the last monthly meeting of the Royal Institution announced to the members present his discovery (the subject of a paper sent in to the Royal Society,) that oxygen is magnetic, that the property of the gas is effected by heat, and that he believes the diurnal variation of the magnetic needle to be due to the action of solar heat on this newly discovered characteristic of oxygen—the important constituent of the atmosphere. M. Bequerel, also, has recently directed attention to a somewhat similar conclusion, in a communication which he addressed to the Academy of Science at Paris.

The vessel, *City of Limerick*, from Dublin, has brought to Liverpool the large number of 178 packages of peat charcoal, as a portion of her cargo of Irish produce; and the *Pelican*, arrived on the same day from Cork, brought eleven bales. Several other arrivals of peat, charcoal, and also of moss, have taken place during the last few days.

---

EDWARDS' PRESERVED POTATO.—The Scale of Victualling for the Navy and Transport Services appeared in our last number (November), and we are gratified to observe that the Preserved Potato forms a regular ration for the sailor and the soldier, by whom, no doubt, this valuable and wholesome vegetable diet will be highly appreciated; as fully justified by the numerous favourable reports made upon this invaluable article.

---

TABLETS IN THE DOCKYARD CHAPEL, PORTSMOUTH.

Sacred
to the memory of
Captain William Broughton, R.N.,
Who died at Tenby after a short illness.
on the 17th August, 1849, aged 44 years,
leaving a Widow and six daughters
to deplore his loss.
He was the only son of Capt. W. R. Broughton, C.B.
(who circumnavigated the World with Vancouver),
and was an officer highly distinguished
in his profession
for his services in the Burmese war,
and for a gallant, skillfully conducted
and successful action,
fought by him in command of H.M.S. Primrose,
with the Spanish slave ship Veloz Passagera
of greatly superior force,
on which occasion Captain Broughton
was severely wounded,
He subsequently served in command H.M. Ships
Pearl, Samarang, President, and Curacoa.
In private life
his amiable and generous disposition
gained him the esteem of all who knew him.

Erected A.D. 1850, by
Charles Talbot, Edward H. Butterfield,
James P. Power, Captains R.N.,
and
John Barrow, Admiralty.

Sacred
to the memory of
Thomas Rodney, Eden, Esq.,
Captain, Royal Navy,
Who died in command of H.M.S. Amphitrite
at Mazatlan, Mexico,
January 11th, 1850, aged 38 years.
This tablet is erected
by the officers and ship's company
of H. M. S. Amphitrite,
in testimony of their great regard
and esteem for him in life,
and their sorrow for his death.

[Among the interesting tablets in the Dockyard Chapel of Portsmouth, bearing monumental records of deeds of worth and valour, stand two, the lines of which the annexed are copies. Like others they have been placed there by the permission of the Admiralty. But these have been recently erected in celebration of two officers, whose career in their profession has been too early closed, and whose memory is cherished with affection and respect, not only by their bereft relations, but by admiring friends, and brother officers of their profession,]

---

## NEW BOOK.

SINGLETON FONTENOY, R.N.—*By James Hannay*, (late of H.M. Navy,) author of Sketches in Ultra Marine, &c.—3 vols. Colburn.—Second Notice.

The author of *Singleton Fontenoy*, takes the lead of naval novelists. His style is rich and racy, smart and vigorous. No lack of reading is there, with a tolerably sound knowledge of men and manners, ashore and afloat. Hence with taste, improved by these ingredients, and an easy flow of good language (for his is no common-place writing), he has produced a work which has established his name and makes us wish for another. We do not attempt a description of his materials; a novel, and especially a nautical one, would be spoiled to the reader by the process; but we may annex an extract:—

"It is a dark and stormy night; the wind is howling a death-rattle through the throat of the Channel. Heavy line-of-battle-ships lie doggedly, three anchors down, cables veered out, lower yards and top-masts struck, in the Sound.

"It is a sight when seamen swear and women pray!

"It was especially bad in the throat of the Channel, the moon was at her full, and had driven the ocean mad; the wind tore up and down the black waters, and every now and then a crash of thunder rolled all round heaven.

"Presently the moon rolls out grandly from behind a black cloud, as if she had been shot, all fiery, for the first time into space. By her light, which streams in a golden oil over the waves, a brig is made visible. Stunted-looking with top-gallant-masts down, bare and rugged, with close-reefed maintop-sail, and storm-try-sails, she labours heavily and sulkily along. It is H.M.S. *Viper*, and this is welcome home! let us transport ourselves on board.

"Welwyn in his cabin, muffled in a large coat, with a tarpaulin hat on, takes the lantern and looks at the barometer, no change, the mercury is cowering low down. Welwyn feels the brig jump and tremble as the waves jump against her ribs, he buttons his coat resolutely, and pushes up the narrow companion-ladder; a flash of lightning meets him on the deck. As he reaches the weather-gang-way—bang! bang! goes the brig's head against the water, a sea breaks, and hissing down heavily, wets everything fore-and-aft with one tremendous shower.

"'Ugh, Ugh,'! said Mr. Block the master, who was in charge of the watch, 'a man might as well be a Newfoundland dog'. The brig here plunged and kicked.

"'What do you think of it?' asked Welwyn, looking drearily to the wind-ward.

"'Bad, bad, bad!' said Block, shaking his head; it's blowing great guns, and I have nothing to oppose to it but a pocket-pistol.'

"Here the brig kicked again as if disgusted at the master's joke; Mr. Block pulled out the pocket-pistol in question, and drank some brandy.

"'If we knew where we were', said Welwyn rather uneasily.

"'Let's heave the deep-sea lead', suggested the master.

"'Watch heave the deep-sea lead.' The men began to crawl out from where they were huddled, under the top-gallant forecastle; the heavy lead was produced and armed, the line was passed along fore-and-aft.

"'Let go! watch there, watch!' passed from one end of the brig to the other. The lead plunged, the line whizzed, the reel span, presently it was hoisted up again, a lantern was brought—Block inspected the armed end of the dripping traveller.

"'Well, what does it say?' Block paused. 'We must be cursed near the coast of France,' he said.

"'I'll wear and lay to,' said Welwyn, with calm decision; 'turn up, every body wear ship'. He seized a speaking trumpet, the men trudged to their places.

"The helm was gradually put up, and the weather braces rounded in, the brig's head fell off from the wind, then, she gave a sweep to leeward, and seemed preparing to fly ahead, a sea, meanwhile, gave her a slap astern, and flung the little dingy that hung there, on board in a twinkling; but she rounded to on the other tack quietly, and having been a long time struck on the star-board bow, held the larboard to the sea, in return, with great resignation; and now there was nothing to do but to keep a good look-out, and wait for morning. The brig rose and fell doggedly but stuck to her place.

"Welwyn waited on deck a long time but there was no change. At last he thought he might retire to his cabin, for a little rest; he left word that he was to be called at day-light, so lay down on his cot.

"Daylight came, as it comes, after stormy nights, sullen, gradual, and grey; the sea dawned into a kind of ashen light, dirty and sickly looking, it foamed like a huge ocean of porter, the seamen began to move about the soaked deck, weary wet, and wrinkled.

"The wind moderated, they bore up on their course, after some consultation between Welwyn and the master. They shook a reef out of the main-top-sail, and set the reefed foresail. The brig vibrated and leapt along, shuddering and rolling; Welwyn's servant crawled up with some coffee. He sat down on the stern grating to sip it, when the look-out man cried, 'A sail'.

" 'Take the glass and look at her quarter-master' said Welwyn, sipping the hot coffee. 'A homeward bound Indiaman likely'.

" The quarter-master looked and mumbled something or other. 'Why she seems in distress,' he said.

" Welwyn got up and looked in the direction to leeward that had been indicated. As the brig neared, there to be sure was a craft, a poor maimed yacht, with her beautiful wings clipped, and looking like a wounded butterfly. It was a real object of nautical sympathy to a moralizing man.

" The quarter-master did not share the feeling much, apparently, for he growled out that he wondered what business they had out on such a night; and that it 'was a tempting of Providence.' In the eyes of a quarter-master, Providence has the sympathies and feelings of a post-captain. But such notions are not confined to such classes. I fancy we most of us judge Providence according to notions of our own.

" 'We must run down to them,' muttered Welwyn. The weather was still moderating, luckily. The brig kept away a little, and started with fresh speed. As they neared the yacht, she seemed more and more helpless, she was a beautiful schooner, and her line of copper flashed as she rose every now and then on the waves. But her masts were broken, and she had a jury rudder.

" Welwyn took the speaking trumpet, and hailed her. There was no answer, they saw nobody. The schooner rose and fell, and seemed helpless, presently, however, a hand waved something above the bulwarks, it looked like a flag or a piece of silk.

" Welwyn and Mr. Block were watching her from the lee gangway, the brig had hove to, to windward.

" 'It is a d'd pretty wreck,' said the master sentimentally.

" 'Shall we send a boat?' inquired Welwyn.

" 'In this sea?'

" 'It is not so bad as it was, I'll go,' said the youthful commander.

" 'A boat was got out and manned with a picked crew, she put off—Welwyn aft, with a keen eye and an intrepid heart, guiding the coxswain. The boat plunged, but she was well managed, she drew near the schooner, a line was passed, and Welwyn and some of the boat's crew got on board over the stern. The first object they encountered was the figure of a man lying rolled up, with a red night cap on, apparently asleep. The coxswain went to him and shook him.

" 'All right old fellow,' muttered the sleeper. The *Viper's* men began to laugh. 'He's drunk, Sir,' said the coxswain to Welwyn. Welwyn moved on, found some more of the crew in the same state. He set his men to work to repair the schooner's damage, as well as it could be done. Then he descended into the yacht's cabin.

" It was a melancholy scene that met his eyes. The floor was strewed with the wrecks of shattered luxury, shivered mirrors, spilled wine, crystal and silver, crushed flowers, and spoiled books and prints, porcelain that had crumbled into dust, and fragments of glass sparkling like beads. The air was heavy and close. The panels of the bulwarks, were defaced; the green silk curtains lay in fragments on the floor. And Welwyn's eye caught a soiled white, small glove, lying like a smashed lilly.

" He stood for a moment in astonishment. Then, putting his head up the ladder, he ordered the cabin skylight to be opened. As he called out, he heard a noise in an inner cabin, the door suddenly opened.

" 'Great Heaven, where is my father?' And Welwyn saw a tall and beautiful girl, wrapped in an enormous shawl, and with her hair hanging, in wild black ringlets, down. Her face was pale with terror and anxiety, her eyes painfully bright.

" 'All is safe,' said Welwyn hurriedly, I have come from Her Majesty's brig *Viper* to take charge of the yacht, the gale is over."

" The girl blushed suddenly red, Welwyn stooped down and began picking up the fragments of the broken things, to avoid causing her any disagreeable con-

fusion. At that instant, the fresh air and light came from the opened skylight, most gratefully, and a great rich gleam of sunshine lighted up the cabin.

"Welwyn thought it best to go on deck for a little. The brig's men were busy putting things to rights. The weather was fast moderating still, and sail being made, the schooner began to move through the water, towing the *Viper's* boat astern. A little boy, apparently a cabin servant, was running about on deck. Welwyn called him.

"'Who does this yacht belong to, my boy?' 'Mr. Lepal, Sir, it was not his fault, Sir'.

Here the boy looked frightened, being apparently afraid that his master would be subjected to castigation by the naval authority.

"Welwyn smiled. "But what brought the yacht into this state?"

"The boy went on to tell him, that the schooner had left Plymouth Sound, on a cruize, a few days before; that the gale had blown them off shore; that the sailing master in charge had been taken ill, (which meant had got drunk), and so the yacht had soon become helpless.

"As he finished his narration, the master came up to Welwyn, very coolly. He rubbed his eyes, 'Ah, leeftenant; a roughish breeze we've had ain't we? I s'pose you'll leave us now we're all right again.'

"'Certainly not, the schooner being in distress we take charge of her," said Welwyn, quietly. And he turned away his head, and looked at the brig, which had made sail, and was standing-on in a line with them. The master kept, however, standing close to Welwyn, with his eyes fixed on him, and his hands deep in his pockets,

"'Want the salvage s'pose leeftenant, eh?' he said, twiddling his thumbs, which were outside his pockets, like crab's claws.

"'I have answered you,' said Welwyn turning away his head.

"The man stood immoveable, grinning, with eyes fixed on him, and moving the hideous red thumbs as before.

"'Eh leeftenant, he! he!' he began, but just then, the coxswain, who had been watching the proceedings with great disgust, and was aware of Welwyn's quietness, suddenly came behind the master and seizing him by the collar, hurled him on one side. The master gave the same stupid leer and presently composed himself once more to slumber.

"Welwyn sent the boy down into the cabin, to inquire after the gentleman and his daughter. It was only his duty.

"Back came a message, 'Would he come down?'

"'Collins', said Welwyn to his coxswain, 'keep the schooner on in the brig's track. Let the hands refit the rigging and so forth.'

"He went down the ladder to the cabin again. Things were by this time pretty well put rights, there were sitting at the table, our old friend Mr. Lepel, and Augusta. Mr. Lepel was older and feebler than when we saw him last, in appearance, and alas! in reality too! Augusta was—Augusta What more can we say? A little taller and more graceful, a little milder and more intellectual, with brow all thought, and eyes all mind, she looked like what she was, a cultivated English girl.

"'We owe our safety to you Sir,' said Mr. Lepel.

"'We had, certainly, a rather rough night,' said Welwyn; 'but these are our common duties in our profession. Happy those whose duties are such that they must naturally be their greatest pleasure, too!'

"Poor Welwyn had not found that such was always the case. But the sentiment occurred to him, and he wished to please those he was with.

"Augusta looked at him with some surprise. I think you said your brig was called the *Viper*.'

"Welwyn bowed.

"'Then surely, papa,' said Augusta turning to her father, 'was not little Fontenoy in that vessel'.

"Welwyn smiled. 'I can answer that; he left us at Malta just before we sailed.'

"And then there occurred a long interchange of questions and answers, con-

cerning my hero, of whom Welwyn spoke, as he thought with great esteem and attachment. This led to more intimate communication between him and the Lepels, and invited him to visit them at Plymouth. Shortly afterwards, Welwyn returned to the brig, leaving the coxswain and some hands on board the yacht.

"The vessels anchored in Plymouth Sound next morning.

"And now Welwyn was plunged into the business of paying off the brig, and was deep into the news of the navy. The Admiralty sent him down his promotion to the rank of lieutenant, and he received a letter from a high authority, complimenting him on his conduct while in the *Viper*.

"Plymouth was as lively as usual, full of naval men 'mooning' about Union Street, &c. A most interesting court-martial was being held on board the flagship, upon Snaggles of the *Beaver*, a lieutenant, who during the recent gale, had reported the sheet anchor ready for letting go, at a time when about twenty seamen and their wives were suspended on it, in their connubial hammocks. A happy accident prevented Snaggles' report from being acted upon, otherwise, the persons most ignorant of naval matters in the country, must be able to guess what a frightful doom would have befallen the slumbering couples.

"Snaggles was tried—took the affair very coolly, made a sarcastic defence, with many damning exposures of the discipline of the *Beaver*, and was sentenced to be put at the bottom of the list of lieutenants, a post for which he had been sedulously qualifying himself for many years! Sentence having been duly passed, the philosophic Snaggles departed to the Continent, there to live quietly on his private means, and his 4s. per diem., half pay; and may be seen. I am informed, by the curious, at most of the places of note frequented by English travellers abroad.

"The *Viper* was soon paid off. Brunt hurried up to London to prepare his work on the *Plague*, and to enjoy the luxury of dissection, of which he had been so long deprived.

"One morning Welwyn went to the hotel where the Lepels were staying.

"'Ah, Mr. Welwyn,' said the old gentleman, 'we thought you had forgotten us. I have disposed of my yacht and we are going home to Rockshire; will you come down and visit us there?"

Welwyn paused. He glanced at Augusta, but she was looking out of the window, and playing with her gold chain.

"'You are very kind' he said, 'but I must first go to some relations. But I will join you afterwards, there with pleasure."

"The door opened. 'Well, Fred?' said Mr. Lepel. Welwyn saw a young man, who had obviously just arrived by the coach, enter the room.

"How do sir? How are you Augusta? It's very chilly this morning! Awfully cold I was, coming down in the coach, I perched opposite a methodist parson. Freezing!"

"Mr. Lepel junior, here removed his cashmere handkerchief, and looked at Welwyn."

"'Lieutenant Welwyn—my son Frederick. This is the gentleman who saved us, you know, Fred.,' said Mr. Lepel."

"'Very glad to see you, Mr. Welwyn,' said the philosophical, radical, and Alcibiades of the Manchester school, 'I must have a talk with you about the navy estimates!' He spoke this with that fatherly air, which young gentlemen who are getting on precociously in the world assume to their coevals. His sister glanced quietly at Welwyn, who bowed. Welwyn fell into the mistake common to persons of the idealist and romantic class of intellect, of looking down on the practical class. The fact is, the latter have not only their own cleverness to go upon, but the world's cleverness to back them.'

"'That was a dreadful scene,' said old Mr. Lepel, reverting (as he was apt to do) to the gale. 'What a night that was!'

"'Ah! you must have found it infernally cold!' said Frederick, moving close to the fire.

"'When will the *Times* be down?'"

## New Charts and Books

*Published by the Hydrographic Office, Admiralty, in November*, 1850, *and sold by J. D. Potter*, 31, *Poultry*,

| | s. | d. |
|---|---|---|
| England, West Coast, *Sheet* 2, *Capts. Denham and Williams, R.N.* 1846. | 2 | 0 |
| England, Morecambe Bay, *Capt. Denham, R.N.*, 1845. | 2 | 6 |
| Ireland, Dungarvan Harbour, *Com. G. A. Frazer. R.N.*, 1849. | 1 | 0 |
| Campobello Island, Bay of Fundy, *Capt. W. F. W. Owen, R.N.*, 1847. | 1 | 6 |
| United States Lights, *corrected to* 1850. | 1 | 0 |
| Virgin Islands, West Indies, *Sheet* 1 *and* 2, *by Lieut. G. B. Lawrence, RN.* 1848, *each.* | 1 | 6 |
| Virgil Islands, Gorda Sound, *Lieut. G. B. Lawrence, R.N.*, 1848. | 1 | 6 |
| Wangeroa Bay, New Zealand, *Capt. J. L. Stokes, R.N.*, 1849. | 1 | 6 |

Edward Dunsterville, *Master, R.N.*

*Hydrographic Office, November 20th*, 1850.

MARRIED.—On the 21st of November at Trinity Church, Chelsea, by the Rev. Jeffery Ekins, Rector of Sumpford, Henry Raper, Lieut. R.N., eldest son of the late Admiral Raper, to Emily Frederica, daughter of the late Rev. Frederick Ekins, Rector of Morpeth, and niece of Admiral Sir Charles Ekins. K.C.B.

MARRIED.—On the 19th of October, at St. Giles's, Reading, by the Rev. J. C. Grainger, Vicar, Richard Edward Dent, step-son of Edward John Dent, Esq., Kensington, to Marianna Frederica, only daughter of Frederick Cowslade, Esq., Gothic Villa, Reading, and neice of Colonel Cowslade.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory From the 21st of October, to the 20th of November, 1850.

| Month Day. | Week Day. | Barometer. In Inches and Decimals | | Thermometer In the shade. | | | | Wind. Quarter. | | Wind. Strength. 0—12 | | Weather. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 A.M. | 3 P.M. | 9AM | 3PM. | Min | Max | A.M. | P.M. | A.M. | P.M. | A. M. | P.M. |
| | | In Dec | In. Dec | o | o | o | o | | | | | | |
| 21 | M. | 29·94 | 29·98 | 42 | 49 | 37 | 50 | N | NE | 5 | 5 | bc | b |
| 22 | Tu. | 30·10 | 29·98 | 41 | 46 | 35 | 47 | NE | NE | 3 | 3 | o | bc |
| 23 | W. | 29·33 | 29·17 | 45 | 43 | 38 | 45 | S | N | 5 | 4 | qor (2) | or (3 |
| 24 | Th. | 29·26 | 29·34 | 42 | 38 | 38 | 42 | SE | E | 2 | 2 | or (2) | or (3) |
| 25 | F. | 29·42 | 29·46 | 40 | 45 | 38 | 46 | NE | NE | 2 | 2 | o | o |
| 26 | S. | 29·64 | 29·71 | 41 | 46 | 38 | 47 | N | N | 1 | 1 | o | o |
| 27 | Su. | 29·91 | 29·89 | 36 | 44 | 32 | 46 | NW | N | 1 | 1 | bm | bcr (4) |
| 28 | M. | 29·41 | 29·31 | 46 | 46 | 43 | 47 | W | S | 1 | 1 | or (1) | bc |
| 29 | Tu. | 29·50 | 29·56 | 37 | 45 | 34 | 46 | NW | NW | 1 | 2 | b | bcm |
| 30 | W. | 29·68 | 29·64 | 38 | 48 | 33 | 49 | SW | SW | 2 | 3 | o | od (4 |
| 31 | Th. | 29·88 | 29·92 | 46 | 51 | 42 | 52 | W | W | 2 | 2 | o | bcm |
| 1 | F. | 29·99 | 30·01 | 54 | 58 | 45 | 59 | SW | SW | 4 | 4 | or (2) | bc |
| 2 | S. | 30·04 | 29·99 | 56 | 59 | 52 | 60 | SW | S | 4 | 6 | qbc | qo |
| 3 | Su. | 30·18 | 30·17 | 47 | 53 | 43 | 54 | SW | SW | 1 | 2 | b | bc |
| 4 | M. | 29·78 | 29·84 | 55 | 53 | 47 | 56 | SW | W | 6 | 4 | qor 2) | bc |
| 5 | Tu. | 30·06 | 30 00 | 50 | 55 | 42 | 56 | W | W | 4 | 5 | o | qbc |
| 6 | W. | 30·09 | 30·11 | 48 | 53 | 44 | 54 | W | W | 3 | 3 | bc | bc |
| 7 | Th. | 30·14 | 30·06 | 48 | 54 | 43 | 55 | W | SW | 2 | 4 | bcm | o |
| 8 | F. | 29·95 | 30·04 | 48 | 51 | 48 | 52 | W | W | 4 | 3 | bcp (2 | bc |
| 9 | S. | 30·35 | 30.32 | 43 | 52 | 37 | 54 | SW | SW | 1 | 1 | bc | bc |
| 10 | Su. | 30·29 | 30·25 | 53 | 57 | 49 | 58 | W | W | 3 | 3 | bc | bc |
| 11 | M. | 30·14 | 30·10 | 52 | 57 | 49 | 58 | SW | W | 2 | 4 | bc | bc |
| 12 | T. | 30·00 | 30·03 | 54 | 56 | 49 | 56 | W | N | 1 | 3 | o | bc |
| 13 | W. | 30 06 | 30·00 | 37 | 46 | 36 | 47 | SW | W | 2 | 2 | bm | bcm |
| 14 | Th. | 30·15 | 30·21 | 34 | 44 | 33 | 45 | N | N | 1 | 1 | bm | b |
| 15 | F. | 30·25 | 30·19 | 33 | 42 | 29 | 43 | SW | SW | 1 | 1 | o | o |
| 16 | S. | 30·08 | 30·06 | 48 | 53 | 40 | 54 | S | SW | 2 | 4 | od (2) | od (3) (4) |
| 17 | Su. | 30·10 | 30·11 | 39 | 44 | 37 | 45 | W | W | 1 | 1 | b | bc |
| 18 | M. | 29·91 | 29·74 | 44 | 45 | 41 | 47 | S | SE | 1 | 1 | od (2) | or (3) 4 |
| 19 | T. | 29·10 | 29·00 | 50 | 53 | 47 | 54 | SW | SW | 6 | 6 | qbcr 1) | qbcp 3 4 |
| 20 | W. | 28·72 | 28·80 | 46 | 48 | 44 | 50 | SW | W | 5 | 1 | qbcp (2) | op 3 4 |

October, 1850.—Mean height of the barometer = 29·829 inches; mean temperature = 46·4 degrees; depth of rain fallen = 1·55.

# GENERAL INDEX TO VOL. FOR 1850.

ENLARGED SERIES.


Acts of the Apostles, 282.
Ada bank, Malabar, 629.
Adelaide, the late Queen, 45.
——— Pension fund, 117, 231, 406, 701.
——— Steamer, wreck of, 295.
Admiral, derivation of, 451.
Admiralty charts, 54, 127, 246, 415, 472, 638, 712.
——— division of business, 637.
Advance, *see* Arctic expedition, 403.
African kingdoms, 467.
Agreements of seamen, 519.
Agulhas bank, sea on, 31.
Akyab, port, St. Domingo, 291.
Allotments of wages, Mercantile Marine, 561.
Amagura island, 260.
American Arctic expedition, 403, 581.
——— ——— ——— ——— Orders, 404.
Ancient naval records, 673.
Aneiteum, Isle of Pines, 430.
Anguilla island, account of, 531.
Anomalistic revolution, 381.
Anticosti, a penal settlement, 528.
Antilles, description of, 530, 620, 670.
Anti-Sargassian paint, 460.
Apia harbour, 218, 324.
Appledore town, 267.
Apprentices—seamen, 239.
Arabic dictionary, 78.
Arago on moon's influence, 380.
Arctic amusements, 553.
——— expeditions, 343. 399, 588.
——— funeral, 83
——— orders, 341.
——— ships, proceedings, 523.
——— voyage of Sir J. Ross, 8.
Ash village, 379.
Ashmore, Capt., on hurricane, 666.
Asia, abstracts of log of, 638.
Atlantic and Pacific, junction, treaties on, 528.
Attack on boats of Rattlesnake, 362.
Auckland, cauri trees, 261.
Aurora Borealis, 86.
——— ——— of the Assistance, 553
Austin, Capt., expedition, 184, 399.
——— ——— sailing orders to, 341.
——— ——— orders to squadron, 603
——— ——— proceedings of, 523.
Australia, voyage to, 226, 278.
——— mails to, 294.
——— boiled beef, 705.
Authority of captains in Mercantile Marine, 140.
Avenger, loss of, 432.

Bache on shoals off Nautucket, 122.
Balade, New Caledonia, 430.
Baffin Bay, esquimaux of, 590.
Bailey, on Mercantile Marine laws, 140
——— his levels, 549.
——— on Nicaragua, 481.
——— on boat's plug, 689.
Bank in Atlantic, 704.
Barham, case of, 366.
Barnard, Lieut., expedition, 165.
Barnett, Capt. E., on Antilles, 529, 620, 671.
Barometer daily fall, 438.
Barrier reefs, Olinda entrance, 579.
Barrow, Sir John, tablets to his memory, 48.
——— monument, 386.
Basses, on light for, 57.
——— ledge of, composition, 59.
——— ships lost on, 62.
Beachey Head, proposed harbour, 151.
Bears' flesh, 17.
Bee, log in, 448.
Beiga volcano, 551.

Berthon, Mr. E., his perpetual log, 52, 441,
Bevis, Capt., on Laird's boats, 277.
Bherings Strait, expedition. 343.
Biddlecombe, Mr., on Skerki, 320, 358.
Biden, Capt., on light for Basses, 57.
——— Mer. Marine, 132.
——— Mer. Seamen bill, 364
——— on loss of Mary Florence, 682.
——— Spontaneous combustion, 369.
Biggs, Mr., his services, 401.
Binstead, Capt., R.N., gallantry, 636.
Biobio river, swelled state, 694.
Black Sea, collision in, 206.
——— trade of, 495.
Board of Trade and Local Boards, 506.
Boats, Laird's iron, 274, 337.
Bone, brittleness in cold, 162.
Bongos, size of, 552.
Benicia town, 281.
Booby Island, rendezvous, 238.
Bosanquet, Justice, opinion on Mer. Marine laws, 141.
Botany Isle, 298.
Bottle papers, 45, 679.
Boulogne *v.* Calais, 240.
Bradley, Mr., on Basses, 59.
Brazil mails contract, 359.
Bruinie islands, 363.
British subjects abroad, 325.
Broadstairs, a Roman station, 314.
Brooks, Mr., on harbour at Beachey Head, 151.
Broughton, Capt. tablet, 707.
Brown, Lieut., expedition of, 165.
Bunkett harbour, 433.
Buoys and Beacons.
——— Goodwin Sands, 521.
——— beacon, 323.
——— Helgoland, Stein rock, 521.
——— in Malacca strait, 339.
——— on removing from rocks, 340.
——— San Francisco, in harbour, 581
Burnett. Capt. on Great Circle sailing. 272, 326.
Bus, sunken land of, 554.
Byron, voyage of, 645.

Cæsar's anchorage, 310.
——— landing place, 314.
——— messengers, 213.
Calais *v.* Boulogne, 240.
Caledonia, New, 298.
California, flood in, 283.
——— how to get on there, 239.
Camelion run down, 203.
Cannibalism in Pacific, 426.
Cape Good Hope, currents of, 26.
——— hints on rounding, 31.
——— steam navigation to, 705.
Carlos, Fort San, 491.
Carmen island, 650.
Carrier pigeons, 703.
Cauri trees, New Zealand, 261.
Chamolet island, Louisiade, 362.
Charcoal peat, Irish, 707.
Charles 1st, orders for his capture, 673,
Charts neglect of, 682.
Chilham fortifications, 217.
Choco Bay, winds of, 474.
Cholera, fear of, 694.
Christianity at Manua, 325.
Chronometer rates, 65.
Cinque Ports, tradition, 210.
City of London steamer, 660.
Clarke, Capt., bottle paper, 45.
Coal, combustion of, 369.
Cochrane, Capt., gallantry of, 582.
Coco islands, Antilles, 670.
Cocoa-nut oil at Samoan, 326.
Cold, effects of, 162.
Collinson, Capt., departure, 91.
——— officers of, 91.
Collisions, general lists of, 201, 207, 288, 330, 415, 454.
Colorado island, trees on, 483.
Columbia river, entrance, 453.
Columbine, collision of, 205.
Columbus, monument to, 704.
Combustion of coal, 369.
Composite sailing, 226.
Constance, passage of, 272.
Cook, Capt., medal presented, 581.
Copper trade of Australia, 706.
Corvo island described, 1.
——— village, 2.
Cost of Skerki light, proposed, 322.
Cowley, his voyage, 643.
Crisp, Mr., on Rangoon, 39.
Cuckoo, accident to, 340.
Current, in Barrow Strait, 19.
——— off the Cape, 26.
——— of the St. Lawrence, 421.

Dardanelles, steam towing company, 706.
Dartmouth dock company, 581.
Dauntless, log in, 448.
Davis, Major, on Barrow Strait, 392.
Decency on Lake Nicaragua, 490.
De Haven, Lieut.-Com., 404.
Delusions, 193.
Dennison, expedition of, 426.

Desertion, on checking, Mer. Marine, 563.
Devil's thumb, rock, 15.
Dicey, Capt., on Akyab, 292.
Dickinson, Capt., on Adelaide Memorial Fund, 406.
Dictionaries for ships, 78.
Dillon, Mr., on Nassau channel, 249.
Docks at Sourabaya, 242.
Dog island, Antilles, 533.
—— tale of a, 294.
Drake, Sir Francis, portrait, 705.
Drowning, rescue from, 705.
Dover harbour, 268.
Duchateau isle, 363.
Dungeness point, 266.
Defaure island, 364.
Dumaresq, Capt., Cuckoo, 340.
Duferre islands, 363.
Dymchurch wall, 267.

Earthquake at Ramsgate, 377.
East Cliff ledge, 312.
Eden, Capt., tablet, 707.
Edwards, Preserved Potato, 42, 355, 707.
Egmont, Earl of, 645.
Electric telegraph at Liverpool, 582, 583.
Emigrants, American, 636.
———— ship abuses, 191.
———— ships surgeons in, 528, 685
Engano, Cape, currents of, 585.
Engledue, Capt., on Peacock's paint, 120.
Enterprize and Investigator, 8.
———————— voyage, 160, 230.
Erie, collision on Lake, 457.
Esquimaux of Whale Island, 11.
———— food of, 469.
———— huts, 590.
Ethelbert, burial place of, 214.
Evans, Mr., R.N., on Taranaki, 129.
Examination of Masters and Mates, 49, 189, 223, 287, 356, 461, 505, 626, 695.

Fabrications, 193.
Falkland islands, history, 641.
———————— names of, 643.
———————— Spanish channel, 647.
Fastnet rock lighthouse, 629.
Faversham, 377.
Fines from wages, Mer. Marine, 565.
Firewood at Laguna de Terminos, 655
Fitzgerald, Mr., at New Caledonia, 359.
Florida stream discussion, 19.
Flying Dutchman, 30.
Folkstone harbour, 270.
Forbes, J., case of, 284.
Forbidden fruit, 196.
Forsyth's, Capt., expedition, 464.
Fortune and Eliza, collision, 303.
Foxes, Arctic, 84.
Franklin, Capt. Sir J., a word on probable position of, 107.
———————— Government reward for, 230.
———————— search for, 365.
———————— traces of found, 612.
Fremont town, 280.
Friendly islands customs, 221.
Frodsham, Mr. J., will of, 636.
Fuegians, notice of, 250.
Fundy, current in bay, 521.

Galvanized iron boats, 337.
Galveston harbour, 123.
Galway harbour for packet station, 411, 582.
Geographical terms, Turkish, 559.
German Navy, 254.
Gilbert Henderson, collision, 204.
Gilpin, Mr., on Arctic voyage, 8, 82, 230.
Glacier harbour, 15.
Go-a-head system, 280.
God save the King, origin, 410.
Godfrey, Capt., voyage of, 227.
———————— on compass sailing, 272.
Godwin, isle of, 315.
———— Earl of, 316.
———————— legend, 375.
Golconda, run foul of, 204.
Goodsir, Mr., notice of his book, 357.
Government reward, 230.
Governor Fenner, loss of life by, 201.
Great circle sailing, 272, 326.
Greenland colony, ruin of, 554.
Grenada, city of, 541.
Grinnel expedition, 403.
Grog committee report, 247.
—— issue of, 293.
—— money compensation, 632.
Guide for the Pacific, 545.
Gunfleet light, 520.
Gustavia harbour, 670.
Gwillym, the Rev., 390.

Halifax and Portland railway, 706.
Harold's anchorage, 271.
Hastings mint, 265.
Hawkins, Mr., on Vegas shoal, 185.

Health of crew, Mer. Marine, 562.
Heath, Com., on weather, 380.
Heligoland derivation, 316.
Henderson, Capt, on bank in Atlantic, 700.
Hilliard, Mr., surveys of, 431.
Hodder, Mr., on Laird's boats, 276.
Home, Capt. Sir E., on Pacific I., 35, 218, 259.
Homes for seamen, 517.
Honduras militia, 246.
Hoskyn, Mr., on Tramore bay, 251.
Howard, Miss, liberality of, 636.
Hunt, Mr., on bottle papers, 698.
——— Universal Yacht List, 470.
——————— at Laguna, 652.
——————— Navigator islands, 666.
Hurricane, Moultan's, 470.
Hythe town, 267.

Ice anchors, 13.
—— bergs, formation, 25.
—— effect on the wind, 16.
—— in Davis Strait, 523.
—— thickness of, 87.
Indifference, a word about, 681.
Iron Duke, collision of, 204.
Islands, effect on trade winds, 480.

Jengen harbour, 428.
John o'Gaunt, ship, 583.
Juan river, Mr. Bailey on, 482.
Jukes, Mr., on Cape York, 237.

Kangaroo Island, Australia, 577.
Karguines Strait, 281.
Keith reef soundings, 320.
——————— awash, 321.
Kellet, Capt., proceedings, 92.
Kelly, Dr., on the St. Lawrence, 417.
Kennedy, Capt., reward of, 637.
Kingsgate, 315.
Kororarika bay, New Zealand, 262.

La Croix, Capt., on Basses, 60.
Laguna de Terminos, 649.
——————————— bar of, 651.
Laing, Lieut., gallantry of, 583,
Laird's, sectional boats, 274.
——— on galvanized iron, 337.
Lancaster Sound, ice in, 594.
Latitude and Hor., angle, 157.
Law at San Francisco, 283.
Lawrance, Mr., on Nicaragua, 481.
——————— Lieut., R.N., on Laguna de Terminos, 649.
Lawrance, Lieut., R.N., bottle paper, 697.
Leighton, Capt., bottle paper, 697.
Leander, portrait of ship, 245.
Leon, lake of, 542.
Lewis. Mr., on Cinque Ports, 310.
Liddell, Lieut, R.N., 229.
Lifu island, 429.
Light at Antonio, Cape, 521.
——— Ardnamurchan, 40.
——— Cape Pine, 700.
——— False, on Bahamas, 462.
——— Galveston, removal, 629.
——— Gunfleet sand, 522.
——— Itacolomi, Maranham, 579.
——— Keyholme I., Baltic, 463.
——— on their description, 124.
——— River Plate, 293.
——— Santapillay, 627.
——— Ship rock, Sanda, 243.
——— Spurn point, 464, 523,
Lighthouse, Ballycotton, 584.
——————— Bishop rock, 323.
——————— description, 124.
——————— dues in Spain, 700.
——————— history of, 469,
——————— Saugor island, 583.
——————— Skerki, 318.
Limes, not obtained, 197.
Lipson, Com., on S. Australia, 577.
Lloyd, Col., on the Cape, 30.
Log, Berthon's, 52, 441.
—— books of Mer. Marine, 567.
—— on form of, 367.
Logwood from Laguna de Terminos, 654
Look-out, necessity of, 206.
Loyalty islands, 425.
Louisburg harbour, described, 687.
Louisiade, west coast of, 361.
Lyndhurst, Lord, opinion on Mer. Marine Laws, 140.

Macbride, Capt., voyage of, 646.
McClure, Capt., bottle paper of, 699.
McDonald, Major, on Tor harbour, 41.
McNeill, Capt., death of, 684.
Machuca rapid, dangerous, 551.
Mackenzie river, 353.
Madeira packets, 636.
Madura peak, height of, 490.
Magellan strait, on passing, 641.
Mahmouz Effendi, on Turkish, 32, 77, 170, 256, 449, 494, 558, 616.
Mails, W. I., places visited, 526.
Malacca straits, shoal in, 339.
Maldives of Indian Ocean, 660.
——————— natives of, 661.
Malouine islands, 644.
Managua lake, 542.

Marigot port, 536.
Margate, original name, 314.
——— derivation of it, 375.
Margery steamer, 657.
Mer. Laws proposed, 133.
Marine Boards, officers of, 511.
——— construction and management, 507.
——— qualification for, 511.
——— Society, bequests to, 637.
Martin, Capt., on Cinque Ports, 210, 265, 657.
——— on Ramsgate tides, 75.
——— on steam, 657.
Mary, loss of, 432.
——— Florence, loss of, 682.
Massacres at Sandalwood Island, 431.
Masters and Mates, examination of, 49, 54, 115, 189, 281, 695.
——— conduct of, 512.
Maury, Lieut., on Polar sea, 630.
——— pilot charts, 186.
Melville bay, difficulties, 16.
Mendocino cape, rocks of, 629.
Mercantile Marine Act, 506, 561.
Merchant service bill, 364.
——— laws, 185,
——— Marine, specimen, 244.
Mercury frozen, 86.
Metallic plugs for boats, 689.
Meteorological Journal, Arctic, 88.
——— Register, 56, 128, 192, 248, 394, 360, 416, 472, 528, 584, 640, 712.
Minehead lighthouse, 584.
Minerva reef, Pacific, 261.
Minster, strata of, 215.
Mirage in Arctic sea, 17.
Misrepresentations, 193.
Mombo Tombo mount, 493.
Mona passage, currents of, 585.
Montreal Meteorological journal, 420.
Montezuma, town of, 281.
Moon, influence of, 380, 435, 499, 536.
——— reputed effects of, 538.
Moore, Com., proceedings of, 95.
——— on Plover's proceedings, 176.
Moorsom, Capt., wave guage, 220.
Mosquitos at Laguna de Terminos, 656.
Moultain, log of, hurricane, 470.
Mozambique channel, 339.
Mullemukke, 557.

Nancy Dawson, voyage, 191.
Naples, mole, mistake at, 582.
Nassau channel, Cape Horn, 249.
Natal, shoal of, 463.
Nautical notices 40, 122, 185, 242, 291, 339, 462, 520, 577, 627, 699.
——— sayings and doings, 581, 636, 704.
Nautical reminiscences, 676.
Naval court, on voyage, Mer. Marine, 566.
Naval Tactics, 358.
Navy, royal in commission, 690.
Navigators Islands, 324.
——— hurricane, 666.
Naze, or Nose, 375.
New Caledonia, 359, 425, 430.
——— Guinea, natives of, 364.
——— Hebrides, account of, 425.
——— Plymouth, approaches, 129.
——— York, how things are done at, 244.
——— Pacific, 281.
——— passages to, 638.
Newspapers, Arctic, 553.
Nicaragua, Lake, excursion to, 481, 539.
——— town, 545.
Norfolk estuary, works at, 705.
Nore derivation, 378.
North Star, return and proceedings, 588.
——— bay, 591.
——— left the ice, 593.
Northern lighthouses expenditure, 358.
Notice found at Cape Riley, 612.
Notices of provisions in Arctic regions 599.

Olinda entrance. barrier reefs, 579.
Ometape peak, height of, 490.
Opinions on powers of captain, 140.
Oral traditions of Cinque Ports, 210, 265, 310, 375, 439, 645.
Orangerie, New Guinea, 364.
Orinoco, current from, 586.
Orion steamer, wreck, 414, 466.
——— Com. of, sentenced, 583.
Outer bank buoy, Humber, 520.
Oxygen, magnetic properties, 706.

Pacific ocean islands, notes on, 35.
——— Lieut. Wood on winds of, 473.
——— from El Cacola, 548.
——— notes, by Sir E. Home, 218.
Palizado river, 649, 653,
Panama bay, winds of, 474.
Papagayos of Pacific, 475.
Paradise point, 271.
Paterson, Capt., on Akyab, 291.
Pay and provision of Royal Navy, 631,

Peacock's Anti-Sargassian paint, 118. 460.
Peninsula company, grog, 293.
Penny, Capt , expedition of, 184.
Pentland Frith, survey of, 527.
Peron island, Louisiade, 361.
Perpetual log, Mr. Berthon's, 52, 441.
Phœnix steamer, loss of, 581.
Piddington on laws of storms, 470.
Pierce, Capt. G., on sailors homes, 263
Pigeons of Sir J Ross, 637.
——— carrier, 703.
Pines, isle of, 429.
——— of Pacific, 220.
Pirates near Scio, 246.
Plover, H.M.S., proceedings of, 176
Plugs for boats, 689.
Polar sea, current, 630.
Pollock rock, notice of, 252.
Ponsonby, H., on currents, 26.
Portland harbour, opinion on, 151.
Portland breakwater, 706.
Portrait of Sir E. Parry, 583.
Pottery, Roman, found, 313.
Powell, Capt., on bank in S. Atlantic, 186.
Preserved potato, Edwards, 42, 355,707.
Preston port, survey of, 288.
Prickly pear cays, 534.
Prince Edward island, 228.
Prize money, division of, 51.
Provisions of Royal Navy, 633.
——— landed for Arctic ships, 602.
——— scale of, in Arctic ships, 9.
——— scale of proposed, 151.
——— to Arctic expeditions, 524.
Pullen, Lieut., expedition, 95.
——— voyage to Mackenzie river, 181.
——— report of, 343.

Qualifications for Marine Boards, 511.

Race of Portland, cause, 156.
Rae, Dr., expedition of, 469.
——— report of, 354, 605.
Raleigh, portrait of ship, 245.
Ramsgate, harbour, 270.
——— valley, 311.
Rangoon, directions for, 39.
Rattlesnake, H.M.S., in Torres Straits, 236.
——— voyage of, 624.
Reculver rock, ruins, 214.
——— origin of name, 375.
Redfield, Mr., on Moultan's hurricane, 470.
Redscar cliff, New Guinea, 364.
Registration of seamen, 525.
Regulations for merchant ships, 146.
Rescue—*see* Arctic expedition, 403.
Reward, Government, for Franklin, 230,
Ribble river, survey, 288.
Richard Dart, wreck of, 228.
Richardson, Sir J., report of, 109.
Richborough channel, 214, 316.
Riga, entrance to, 580.
Riley Cape, notice found at, 612.
Rival routes across channel, 240.
Riviere, M., discovery, 432.
Robinson, Sir C., on Mer. Marine laws, 141.
Robinson, Lieut., expedition, 165.
Rocks and Shoals.
——— Australia, south coast, rocks on, 577.
——— Arabian shoal, Pacific, 628.
——— Bun shoal, China sea, 123.
——— Colorado, branch shoals of, 552.
——— Gem shoal, Sooloo sea, 293.
——— Proselyte shoal, 535.
——— San Francisco harbour, shoal in, 520.
——— Santapillay rocks, 627.
——— Shoal of Cape York, 463.
——— Shoal in Mozambique channel, 339.
——— Sooloo sea, shoal in, 293.
Roman fortifications, 216.
Romansgate—*see* Ramsgate, 312.
Roman virtues, 379.
Romans in Britain 217.
Road bay, Sandy Islands, 532.
Ross, Sir James, expedition, 164, 166.
——— leaves P. Leopold, 168,
——— Capt. Sir John, expedition, 185. 402.
Rother river, 266.
Route of West India and Brazilian Mails, 359.
Rowles, Capt., verdict against, 637.
Royal Alice, escape of, 203.
Royal Sovereign harbour, 151.
Rucker's list of collisions, 333.
Rudder, E. H., on, 44.
Rule Britannia, origin, 409.
Rye, town of, 266.

Sacramento river, 280.
Sailor's character, sketches, 306.
Sailors Homes, 517.
——— Portsmouth, 304.
——— Wells street, 263.
Samoan islands, 324.
San Francisco, 282.

San Juan port, Pacific, 548.
——— Nicaragua river, 663.
Sandalwood island, 431.
——— voyage, 298.
Sandwich islands, winds at, 480.
Sandy island, Antilles, 531.
Saxons, early, 217.
Scadden, Capt., on Basses, 60.
Schomburgk, Sir R., on St. Domingo, 242.
——— ——— Mona passage, 585.
Scott, Mr., skill, good effects of, 550.
Screw Propeller, 660.
Scrub island, Antilles, 533.
Sea Horse, transport, wreck of, 252.
Sea, reasons for going to, 580.
—— encroaches of, 314.
—— serpent, last of, 582.
Seamen, engagement of, 518.
Sectional boats, 337.
Serapequi river, width etc., 484.
Shambles, buoys of, 463.
Shanunga, collision of, 205.
Sheddon, Mr., visits Herald, 103.
Ship building extraordinary, 706.
Shipping offices of seamen, 516.
Ships cut off by natives, 427.
Sierra Leone, cape, 123.
Singleton Fontenoy, 580, 707.
Sisters, attack on, 429.
Skerki, proposed light for, 318.
Sketches of the sailor, 305.
Skyring, Mrs., exertions of, 231.
Slave trade, abolished by Brazil 581.
Solentinane peak, 492.
Sombrero island, account of, 530.
Songs, popular, lecture on, 409.
Sorelli rocks, Avenger wreck, 43.
——— position, 433.
Soups to Arctic expeditions, 524.
Soundings, deep sea, east of Bermuda, 699.
Sourabaya, docks at, 242.
South Atlantic, banks in, 186.
Soyer's Magic Stove, 242.
Space, penalties for want of, Mer. Marine, 563.
Spontaneous combustion, 369.
Springfield, city of, 283.
Spurn point, sea encroachment, 323.
St. Bartholomew island, 623, 670.
—— Domingo, ports on south coast, 242
—— Lawrence, Dr. Kelly on, 417.
—— Martin island, 535.
Stanley, Capt., at cape York, 238.
——— Capt. Owen, 460.
——— port, Falkland island 628.
Staten Land, 641.
Steam flour mill, 173.
Steam first at Ramsgate, 657.
Steamer, City of Glasgow, 294.
——— history of, 657.
——— to Chagres, 239.
Stormy Jack on Nautical Reminiscences, 676.
Straws from California, 280.
Studfall castle, 266, 267.
Submarine telegraph, Dover, 192, 704.
——— ——— to France, 637.
Sud-Est island, 362.
Suggestions for Mer. Marine Regulation, 133.
Sun last seen in Arctic ships, 87.
Supplies at Samoan, 326.
Surgeons in emigrant ships, 528, 685.
Suisun town, 281.
Suttersville town, 1, 281.
Sylvester's stove, approval of, 84.

Tana, island, 428.
Tapa manufacture, 221.
Taranaki, approaches to, 129.
Tavaii island, 219.
Tehuantepec gulf, winds of, 475.
Temperature of Ross' expedition, 86.
——— ——— and others compared, 90.
Tenerife, coals at, 581.
Thames, sands at entrance, 376.
Thanet, derivation of 315.
Thunder, bottle paper, 697.
Tides of the St. Lawrence, 421.
——— on Ramsgate, 75.
Timor Laut, treachery, 284.
Tor harbour described, 41.
Torres strait, incident in, 236.
Towson's tables, 226, 278.
Toynbee, Capt., on rating chronometers, 65.
Trade wind in the Pacific, 479.
Tramore bay, dangers of, 251.
Transition state of earth, 211.
Treachery at Timor Laut, 284.
Trivett, Mr. J., on lat. and hor. angle, 137.
Turkey, population of, 494.
Turkish, neglect of in England, 170.
——— ship blown up, 704.
——— for tars, 32, 77, 170, 256, 449, 494, 559, 616.
Tutuilla, government of, 325.

Upolu island, 218, 325.
Uppernavik establishment, 13.
——— ——— meaning of, 13.
Usumacinta river, navigation, 653.

Vocabulary Turkish, 559.
Vanguard, schooner, 298.
Vate or Sandwich land, 428.
Vaughan, Baron, on Mer. Marine Laws, 140.
Vavaou, king, 36.
Vegas shoal, 185.
Vegetation, Arctic, 11.
Viceroy steamer, 411.
Vidal, Capt., on island Corvo, 1.
Voyage to Australia, 226.

Wages, payment, Mer. Marine, 569.
——— and provisions, Mer. Marine, 561.
Walker, Mr., on Wolf rock light, 123.
Wallis island, Pacific, 259.
Wave guage of Capt. Moorsom, 224.
Wantsum, river, choked, 216.
Water at Laguna de Terminos, 655.
——— Louisiade, 362.
——— dog, tale of, 294.
Weather, effect of moon on, 380.
Webster town I, 281.
Weights and Measures, Mer. Marine, 553.
Wellesley, Capt., on Nassau channel, 611.
Wellington channel, ships in, 611.
——— collision of, 204.
West India packets, list of, 471.
——— mails conveyed to, 526.
Whale islands, position, 11.
Whitstaple haven, 277.
Wigs of Feejees, 220.
Williams, Capt., on Ribble, 288.
William island, Pacific, 579.
Winchelsea old town, 266.
Winds of the St. Lawrence, 417.
——— influence of moon on, 435.
——— of the Pacific, 473.
Wolf rock, iron lighthouse on, 123.
Wollaston land natives, 355.
Woman, English, rescued, 237.
Wood, Lieut., on winds of Pacific, 473.
——— gallant conduct of, 581.
Woodin channel, N. C, 298.
Wreck found by Arctic ships, 18.
Wrecks, tables of, 47.
——— of British shipping, 188.
——— in Atlantic, 415.

Yengin Harbour, 432.
York, Cape, examination of, 236.

## NEW BOOKS.

Annual List of Northern Lighthouses, Beacons, and Buoys, 127.
Arctic Voyage to Baffin Bay and Lancaster Sonnd, 357.
Arthur Montague; or, an only Son at Sea, 245.

Complete and Universal Dictionary of Signals, 54.

Hunt's Universal Yacht List, 470.

Life of Columbus, 470.

Narrative of an Expedition to the Shores of the Arctic Seas, 469.
Narrative of the Wreck of the Favourite, 127.
Naval Tactics, 358.

Petrel; a Tale of the Sea, 190.
Practice of Navigation and Nautical Astronomy, 52, 124, 190.
Problems in Astronomy, Surveying, and Navigation, 54.

Rudimentary Treatise on the History, Construction, and Illumination of Lighthouses, 469.

Singleton Fontenoy, R.N., 580, 707.

## PLATES.

*Directions to the Binder.*

Royal Sovereign Harbour ..... *to face page* 151
Chart of Barrow Strait..... 588

## WOOD ENGRAVINGS.

Berthon's Log, 442, 443, 445, 447.
Laird's Sectional Boats, 274, 338.
Lake of Nicaragua, 491, 547.
Lighthouse, Skerki Channel, 319.
Rapid, del Castello Viejo, 487.
San Francisco River, 485.
Sketch of Pacific, 548.
Wave Guage, 225.

London:—Hunt, Printer, Church Street, Edgware Road.

Vocabulary Turkish, 559.
Vanguard, schooner, 298.
Vate or Sandwich land, 428.
Vaughan, Baron, on Mer. Marine Laws, 140.
Vavaou, king, 36.
Vegas shoal, 185.
Vegetation, Arctic, 11.
Viceroy steamer, 411.
Vidal, Capt., on island Corvo, 1.
Voyage to Australia, 226.

Wages, payment, Mer. Marine, 569.
——— and provisions, Mer. Marine, 561.
Walker, Mr., on Wolf rock light, 123.
Wallis island, Pacific, 259.
Wave guage of Capt. Moorsom, 224.
Wantsum, river, choked, 216.
Water at Laguna de Terminos, 655.
——- Louisiade, 362.
——- dog, tale of, 294.
Weather, effect of moon on, 380.
Webster town I, 281.
Weights and Measures, Mer. Marine, 553.
Wellesley, Capt., on Nassau channel, 611.
Wellington channel, ships in, 611.
——— collision of, 204.
West India packets, list of, 471.
——— mails conveyed to, 526.
Whale islands, position, 11.
Whitstaple haven, 277.
Wigs of Feejees, 220.
Williams, Capt., on Ribble, 288.
William island, Pacific, 579.
Winchelsea old town, 266.
Winds of the St. Lawrence, 417.
——- influence of moon on, 435.
——- of the Pacific, 473.
Wolf rock, iron lighthouse on, 123.
Wollaston land natives, 355.
Woman, English, rescued, 237.
Wood, Lieut., on winds of Pacific, 473.
——- gallant conduct of, 581.
Woodin channel, N. C, 298.
Wreck found by Arctic ships, 18.
Wrecks, tables of, 47.
——— of British shipping, 188.
——— in Atlantic, 415.

Yengi
York,

## NEW BOOK

Annual List of Northern Lighthouses, Beacons, and Buoys, 127.
Arctic Voyage to Baffin Bay and Lancaster Sonnd, 357.
Arthur Montague; or, an only Son at Sea, 245.

Complete and Universal Dictionary of Signals, 54.

Hunt's Universal Yacht List, 470.

Life of Columbus, 470.

Narrative of an Expedition to the Shores of the Arctic Seas, 469.

Narra
vourite, 127.
Naval Tactics, 358.

Petrel; a Tale of the Sea, 190.
Practice of Navigation and Nautical Astronomy, 52, 124, 190.
Problems in Astronomy, Surveying, and Navigation, 54.

Rudimentary Treatise on the History, Construction, and Illumination of Lighthouses, 469.

Singleton Fontenoy, R.N., 580, 707.

## PLATES.

*Directions to the Binder.*

Royal Sovereign Harbour ..... *to face page* 151
Chart of Barrow Strait..... 588

## WOOD ENGRAVINGS.

Berthon's Log, 442, 443, 445, 447.
Laird's Sectional Boats, 274, 338.
Lake of Nicaragua, 491, 547.
Lighthouse, Skerki Channel, 319.
Rapid, del Castello Viejo, 487.
San Francisco River, 485.
Sketch of Pacific, 548.
Wave Guage, 225.

London:—Hunt, Printer, Church Street, Edgware Road.

UNIVERSITY OF ILLINOIS-URBANA
527.05 NA C001 v.19(1850)
United States nautical magazine /
3 0112 088413882